United States

Court of Appeals &

For the Rinth Circuit.

JESSE E. HALL, WEATHERFORD OIL TOOL COMPANY, INC., a Corporation; WEATHERFORD SPRING COMPANY OF VENEZUELA, C.A., a Corporation; HALL DEVELOPMENT COMPANY, C.A., a Corporation; WEATHERFORD, LTD., a Corporation; WEATHERFORD INTERNACIONAL, S.A., DE CV., a Corporation; NEVADA LEASEHOLD CORPORATION, a Corporation;

Appellants.

vs.

PARKER INDUSTRIAL PRODUCTS, INC., a Corporation.

KENNETH A. WRIGHT and B & W, INC., a Corporation,

Appellees.

KENNETH A. WRIGHT and B & W, INC., a Corporation,

Appellants,

v

JESSE E. HALL, WEATHERFORD OIL TOOL COMPANY, INC., a Corporation, et al.,

Appellees.

Transcript of Record

In Nine Volumes

Volume IV (Pages 1509 to 2000)

Appeals from the United States District Court for the Southern District of California Central Division.

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DEPOSITION OF LAURENCE C. KELLY

a witness produced on behalf of the Petitioner, havbeen first duly sworn to testify the truth, the whole truth and nothing but the truth, upon oral interrogatories, deposed and testified as follows:

Direct Examination

By Mr. Lyon:

Q.1: Will you state your name?

A. Laurence C. Kelly.

Q.2: Where do you reside, Mr. Kelly?

A. Brentwood, 201 Homewood Road, Los Angeles 49.

Q.3: What is your occupation?

A. Producer of oil.

Q.4: Are you connected with any company?

A. Yes, the L. C. Kelly and M. V. Kelly partnership which took over the assets and liabilities of Thomas Kelly & Sons, Incorporated. [1822-523]

Q.5: Were you connected with Thomas Kelly & Sons, Incorporated, before it was taken over by the partnership? A. I was president of it.

Q.6: That change of ownership is something that has occurred since march of 1951?

A. Yes, it just occurred a little over a year ago, a year and a half ago.

Q.7: Did Thomas Kelly & Sons drill a well in 1939 at the Athens-Rosecrans Field in Los Angeles County?

A. We called it Rosecrans Field. We didn't put "Athens" to it. Athens was further in towards town, and we just called it Rosecrans Field. We did, we

drilled McMillan No. 1 at Rosecrans in the latter part of 1939.

Q.8: In the drilling of that well did you use any unusual device or devices that were unusual at that time on the casing preparatory to cementing?

 Λ . Yes, it was our first experience in using scratchers on the casing.

Q.9: From whom did you obtain those scratchers?

A. From B & W Company, that is, Wright and Barkis.

Q.10: Did you purchase those scratchers?

A. We did.

Q.11: Have you any canceled check or other written evidence of your payment for those scratchers?

A. Yes. I was asked to give proof of that purchase, so our records were searched, and I found a canceled check [1822-524] that I put in my wallet. Here it is—I am sure I put it there. There is the canceled check.

Q.12: You have produced Thomas Kelly & Sons, Inc.'s, check No. 5059, dated February 5, 1940, in the sum of \$174.13, made payable to B & W. Inc. How do you identify that particular check as being the check that was paid in payment of the scratchers used upon the McMillan Community No. 1 Well?

A. May I see it? First, I know the form of the check and second, I can identify my signature and that of my brother.

Q.13: Had you made any purchases from B & W

(Deposition of Laurence C. Kelly.) at any date earlier than this?

A. No.

Q.14: How long was it after this check that you made any other purchases from B & W. if at all?

A. I don't ever recall making any other purchase.

Mr. Lyon: I will ask that this check as produced by the witness be received in evidence as Petitioner's Exhibit N, and I presume that Mr. Kelly would like to have his records complete, so I will offer, if it is satisfactory to the attorneys for the Applicant, to photostat both sides of this check, together with the Clearing House perforations, and substitute these photostats for the original, so that the original check may be returned to Mr. Kelly.

Mr. Scofield: You will furnish us with a copy of the check ? [1822-525]

Mr. Lyon: Yes. Do you want to see it?

(The check referred to was marked by the Notary Public as Petitioner's Exhibit N, photostatic copy of which is made a part of this deposition.)

Q.15: (By Mr. Lyon): You state, Mr. Kelly, that this check, Exhibit N, was in payment of the scratchers delivered to the Community No. 1 Well, and a B & W invoice for those scratchers is identified in evidence in these proceedings as Exhibit K to the affidavit of Mr. Bruce Barkis of May 30, 1951, and it shows the charge for the scratchers, including a sales tax, was \$177.68.

A. Yes, I found that difference, and it was a 2 per cent cash discount that made the difference.

Q.16: So you took a 2 per cent cash discount from the invoice amount and that represents the difference?

A. That is correct. You will find by working that out it is exactly right.

Q.17: You have stated that B & W scratchers were used upon this well. Were you present at the time that the casing was run in that well?

A. I was there from the first length of casing, the first joint of easing was run until the easing was landed.

Q.18: When was that?

A. December 30 and 31, 1939.

Q.19: Who else was present at that [1822-526] time?

A. Our superintendent, Earl Sweetzer, was continuously present.

Q.20: Besides the crew were there any other people present?

A. My brother was there part of the time, but not all the time.

Q.21: Were any representatives of B & W there?

A. Yes, Kenneth Wright.

Q.22: Was Bruce Barkis there at any time?

A. I don't know, I can't remember that, but I know that Kenneth Wright was there continuously.

Q.23: That is, he was there practically the entire time that you were?

A. I believe so, yes.

Q.24: These scratchers that were run on this cas-

ing, were they like any of the scratchers that are on the table here before you?

A. Yes, it could be like either one of them. I could not identify them.

Q.25: That is, they were either like Exhibit 2 or Exhibit A, those being the ones that are there on the table?

A. It could be one or the other. I couldn't be sure.

Q.26: Were you there when these scratchers were mounted on the casing?

A. I was. [1822-527]

Q.27: How were they mounted on the casing?

A. They were slipped on the casing, and little stops were welded to give them an up and down vertical action of, oh, a few inches, 12, 15 or 18 inches.

Q.28: Were they attached to the casing in any other way?

A. No.

Q.29: Were they or were they not free to rotate upon the casing?

A. If they were free to rise, to rise vertically and fall vertically, they certainly were free to rotate.

Q.30: State whether or not at any time you observed anybody spin the scratchers upon the casing?

A. I did not?

Q.31: You don't recall that? A. No.

Q.32: Approximately how many scratchers were run on that casing?

A. Well, the bill states it there. I think there were twenty-two or three or four, something like that.

Q.33: Where were they run on the casing with respect to its length?

A. I believe they were run on the first joints that went in.

Q.34: That is, the bottom joints? A. Yes.

Q.35: How deep was that well? [1822-528]

A. I haven't looked that up for a long time. I will have to rely on my memory. I can hit it pretty close.

Q.36: Let me see the log book.

A. I would think we set casing around 7500 feet, and we had open hole for a length of 200 feet below that. The total depth of the well would be somewhere between seventy-six and seventy-seven hundred, would be my memory.

Q.37: I hand you a log book, and ask you if you can identify this, Mr. Kelly?

A. I can identify it only by the fact it is the form we use, and I will refer to it and see whether I know any names here. Here is a driller by the name of Sharkey. I knew him, and Sam Patterson was working, I remember him. Langenbeck was a driller, I remember him. I remember a driller by the name of E. F. Edmonds here, and probably—I see the name Rutherford. I remember him as a welder. I guess that should be sufficient, shouldn't it?

Q.38: This log says it is a "Daily Driller's Report of Thomas Kelly & Sons Community No. 1 Well."

A. "McMillan Community No. 1."

Q.39: This log book, was that part of the records of Thomas Kelly & Sons?

A. Oh, yes, we always kept a very accurate log book.

Q.40: I note the depth of this well, as stated in this log book, is recorded throughout the tours of December 30 and 31, 1939, as being drilled to a certain depth. [1822-529]

A. I hit it pretty close, didn't I? It shows here 7693. I hadn't looked at that since the day the well came in.

Mr. Scofield: Is that the 30th, 31st of December? The Witness: That is the 30th date that I am looking at, that gives the depth at 7693. There would be no further depth after this; that is the T. D., total depth.

Q.41: (By Mr. Lyon): Do you recall now near to the bottom of the well this casing carrying the scratchers was ultimately dropped to?

A. Well, the total depth was 7693, as shown there, and my recollection is that we had 200 feet of zone open for production, and that our setting point was approximately 200 feet less than the total depth. That would make it 7493, approximately 180 to 200 feet of formation left open for production, and therefore the setting point of the casing would be approximately 200 feet less than the total depth, making it 7493, or thereabouts.

Q.42: Did you encounter in the lowering of the casing with the scratchers on it in the well any difficulty in lowering the casing?

A. I recollect the casing stuck, I think it was three times. We could not get circulation, we could

not get the casing up and down, our pumps would not move, would not give it circulation. We just could not move the rotary mud.

- Q.43: Would that condition of operation be reflected in any way in your log book? [1822-530]
 - A. I think it would.
- Q.44: Will you review the log book, and see if you can ascertain where or when or at what depth that difficulty was encountered?
- A. It certainly didn't make the point of it it should have here, because we had great difficulty. It says, "Cleaning out and circulating." That is blurred there. It looks like "64 stands, reaming 6969 to 7400." and—

Q.45: What is this circulating?

A. I definitely can state this, gentlemen, that our pipe was stuck at least. I say three times, at least twice we could not move it, and we brought out a Perkins cement truck which would give us higher pressures than our ordinary mud pump, which ordinarily operated at 750 pounds per square inch. We put 2600 pounds per square inch on the rotary pump in order to free the casing and regain circulation, and that we did on two or three occasions before we succeeded in freeing the casing, getting circulation, and landing it where we planned to land it originally.

Q.46: Do you recall after the first recirculation that you periodically recirculated on lowering the easing into the well to avoid further sticking in the well?

A. Yes, we did, yes.

Q.47: You did that? A. Yes.

Q.48: And continued that practice until you landed [1822-531] the easing to the depth that you wanted it?

A. Except for what I said, we got stuck either—I think it was three times.

Q.49: You got stuck three times? A. Yes.

Q.50: Do you know how deep the bottom of the casing was when you encountered the first sticking?

A. You are asking me questions that take me back 13-odd years. I will have to do a little thinking about that. My recollection is we were first stuck nearly 2,000 feet off bottom, which would put it at about 5600 feet, and then we were able to run another thousand feet or thereabouts of casing and got stuck again, and then the third time, I don't recall the depth at which it was stuck.

Q.51: Was the well ultimately cemented?

A. It was.

Q. 52: Did the cement job accomplish a successful water shut-off?

A. I believe so, yes.

Q.53: Was the well a producer?

A. Yes, sir, it produced initial production about 250 barrels a day of clean oil. I am quite sure we didn't have a recent job on that. We did on some of them, but I am quite sure that our first jobs caught on the cement.

Mr. Scofield: Would you read that answer, please?

(Answer was read by the [1822-532] reporter.)

Mr. Lyon: That is all. You may cross-examine.

Cross-Examination

By Mr. Scofield:

XQ.1: Mr. Kelly, did you have anything to do with the drilling of the well yourself? That is, you were the owner of the well, I understood?

A. Yes.

XQ.2: Did you actually take a part in the drilling?

 Λ . I was there everyday in a supervisory capacity.

XQ.3: And you had some experience in oil well drilling?

A. Oh, yes, many wells before that.

XQ.4: I understand that this well was finally drilled to about 7693 feet? A. Yes.

XQ.5: Was there set in this particular well a surface string? A. Yes.

XQ.6: What was the size of it, and if you want to refer to your log, why, there is no objection to doing it.

A. I think 11%, I think, but we will go back. We changed and put different sized surface strings, but I think it was 11%. I will go back to the start here. The first depth I can pick up upon the log book is—wait a minute, oh, I missed something here. I can check it. 13%, it was. We set a thousand feet of 133%. We used different [1822-533] sizes, so that led to my slight confusion there.

XQ.7: Did you in this well use a circulation string at all?

A. A circulation string?

XQ.8: Yes.

A. I don't quite understand what that is, sir.

XQ.9: Was there any string pipe set outside of this surface string at all?

A. Was there any set outside of this?

XQ.10: Yes, or inside of it.

A. Well, we set a thousand feet of 13%. There was no other easing other than this 65% we had under discussion with the scratchers on it. Does that answer your question?

XQ.11: What do you term the 65% out here? Is it a water string or an oil string?

A. Well, we call it a water string.

XQ.12: You call it a water string?

A. Yes.

XQ.13: And what was the length of this water string?

A. Well, it would be the length I gave there of 5693, less a couple of hundred feet of open formation.

Mr. Lyon: 7493.

The Witness: 7493, the length of the casing.

XQ.14: (By Mr. Scofield): 7,493? A. Approximately, ves. [1822-534]

XQ.15: So that it would be about 200 feet off bottom?

A. That is right.

XQ.16: Do you know who in your company recommended the use of the scratchers on that particular well?

A. I had known Kenneth Wright for some

years prior to this, and he came to our office in the field and discussed the use of the scratchers with Earl Sweetzer, my brother and myself, and we were convinced by his arguments that we should use them.

XQ.17: So that the three of you, in conference with Mr. Wright, after discussing the matter, decided to use the scratchers?

A. That is right.

XQ. 18: I believe this invoice shows that there were 23 scratchers purchased?

A. I believe that is right, yes.

XQ.19: Do you know how many were actually used in the well?

A. Well, we are the type of people that believe in getting what we pay for. I think there were 23.

XQ.20: You think they were all used in the well? A. I definitely would say so.

XQ.21: You have indicated in your direct examination that they were on the lower joints. Will you clarify that a little for me? Just how many of the lower joints were they on? [1822-535]

A. I could not answer that question. I have forgotten what the spacing of them was. I could not answer that question.

XQ.22: Do you know how far apart they were spaced?

A. That is just what I say, I can't answer that question. I don't remember.

XQ.23: What type of pipe did you use on this water string? A. 65%.

XQ.24: I mean was the pipe new pipe—

A. No.

XQ.25: —or old pipe?

A. No, some we had reclaimed from a well, but it was good pipe. It was API pipe.

XQ.26: Does your log indicate there whether or not these pipe sections were welded?

A. Our pipe sections welded?

XQ.27: Yes.

A. Oh, definitely not. They are all screwed.

XQ.28: These were all screwed?

A. Oh, yes, definitely, threaded.

XQ.29: Do you recall at this time, perhaps it is a little stretch of your memory, but do you recall at what time of day you began running this pipe? That might be indicated on the log, too.

A. I have quite a fair recollection that I arrived [1822-536] at the job a little earlier than 7:00, about 7:00 or 7:30, on December 30. Now, just——

XQ.30: In the morning or evening?

A. In the morning of December 30. Just at what time we actually started running the first joint I don't remember, but I purposed being there for the running of the first joint, and I stayed until the last joint went in.

XQ.31: So that you are pretty sure it was run some time during that day? A. Yes.

XQ.32: On December 30—— A. Yes.

XQ.33: —or December 31?

A. Because it was during the night we got

stuck, in the early hours of December 31, that we got stuck, is my memory.

XQ.34: Do you recall whether on the first occasion that the pipe stuck you were below the surface string?

A. Oh, yes. Yes, I stated that I thought our pipe first stuck around 5,600, and the surface casing was set at a thousand feet.

XQ.35: You indicated, too, that the second time the pipe stuck was some thousand feet below that?

A. That is my memory, yes.

XQ.36: Do you recall whether you had any trouble at all in getting the pipe through the surface casing? [1822-537] A. No, none.

XQ.37: So all your difficulty was after the scratchers had gotten through the surface casing?

A. Yes.

XQ.38: Can you explain why the scratchers are not mentioned in this log?

A. No, I can't.

XQ.39: This was a most unusual thing, was it not, in your company history?

A. Indeed it was. It was the first time we ran them.

XQ.40: I assume that before you started drilling this well that you made a report to the Division of Oil and Gas?

A. We followed all the conventional regulations, yes.

XQ.41: Did you make out a report for the Division of Oil and Gas on this well?

A. Undoubtedly. I did not personally. We always followed all the rules and regulations scrupulously.

XQ.42: I appreciate that. Would you, Mr. Kelly, give me a letter to the Division of Oil and Gas, so that I can obtain a copy of the report which you made to the Division of Oil and Gas in the State of California?

A. I definitely have no objection.

XQ.43: You can either give it to me through Mr. Lyon, or if you will send it to Mr. Subkow here I will give you his address.

A. If one will be prepared while I am here I will [1822-538] be glad to sign it.

XQ.44: I believe you have indicated that Mr. Earl Sweetzer was your superintendent?

A. That is correct.

XQ.45: How long had he been working for you in 1939?

A. He came—

XQ.46: Or just a guess.

A. No, I can place it very definitely. He came to us when we first started in Venice in 1930, and he was with us continuously from thereafter up until this time.

XQ.47: So he had been with you at least nine years? A. That is right.

XQ.48: How long did he continue after 1939, do you recall that?

A. Yes, about three years, until we ceased drilling, and he was too valuable a man to keep on just

production. We could not afford to pay him what he merited, so my son in the meantime had been trained by Sweetzer as a production man, so Earl found suitable work with Hurley Kelly, and my son took over the production matters.

XQ.49: Is Hurley Kelly a producing outfit?

A. Drilling and producing. No relation, the name "Kelly" is no relation. I believe he is still with them

XQ.50: I believe you indicated also in your direct examination that this was the only well in which you used scratchers? [1822-539]

A. That is correct.

XQ.51: Did the sticking of the pipe have anything to do with your discontinuing the use of scratchers?

A. It could have. We also discontinued using the type of mud that we used in that well. We found there was too much sand and other matter, and that the water would fall out of it and cause trouble, too much water loss. So we, in drilling the next well, decided to do everything humanly possible to avoid getting our casing stuck again, and we were of the opinion, without having any evidence to that effect, we were of the opinion that the scratchers might have been contributory, so we changed our mud and watched our mud more carefully and did not use the scratchers.

XQ.52: Can you tell me from the log book or from recollection what the size of the hole was below the surface string?

A. Well, I would say with $6\frac{5}{8}$ casing we probably used $8\frac{5}{8}$, possibly an $8\frac{5}{8}$ hole. That would be my recollection.

XQ.53: Would that be reflected in the log?

A. I would believ so. Do you want me to look it up?

XQ.54: I would like to have you check that, if you will.

A. "Size of hole 105%." It was larger than I thought.

XQ.55: So the size of the hole was [1822-540] $10\frac{5}{8}$ — Λ . Yes.

XQ.56: ——inches below the surface string?

A. That is right. We were playing it safe and made a good big hole.

XQ.57: Is there any indication on that log as to whether it was reamed at any place?

A. Oh, we were very, very careful in all holes ran. We never changed a stand pipe we didn't ream, ream up and down.

XQ.58: Where was it reamed, the whole length below the surface casing?

A. Every time we would change a joint of drill pipe, or we would ream for oh, probably two or three joints, from 60 to 90 feet, and then, our usual practice before setting easing we would ream the entire hole from top to bottom.

XQ.59: On this particular well it is indicated that it was reamed from about 6,960 feet to about 7,495 feet. Can you explain why you reamed that

(Deposition of Laurence C. Kelly.) particular part of the hole and indicated it in the log, and not anywhere else?

A. Is that indicated in the log?

XQ.60: That is indicated on the log, yes. You might check it if there is any doubt in your mind.

Mr. Lyon: I think it should be checked.

The Witness: Following our usual practice—

Mr. Lyon: And also the statement it was not reamed [1822-541] anywhere else should be checked.

Q.61: (By Mr. Scofield): You might look at the log and see if what I say is correct, Mr. Kelly.

A. I will see if I can find it. I know that Sweetzer as a superintendent, was extremely strong for keeping the hole well reamed, and we were behind him on that. Well, here I find a case of reaming and pumping from 3,650 to 7,122.

XQ.62: 3,650 to, what was the second figure?

A. To 7,122. Now, then, some interim reaming here as we went along. I think I saw a point here. This is some of the interim reaming. Two stands, just as I told you, of casing was reamed, reamed from 6,620 to 60—blurred figure, 58. The two stands would be about 196 feet, 186 feet. Let us see if we can find some other reaming here. I can say, generally speaking, that our custom was to ream more than the average people did. Now, here I find the total depth of the well at this time was 5,406.

XQ.63: What was the size of the reamer in each case here?

A. We just reamed with the regular bit.

XQ.63-A: To the size of $10\frac{5}{8}$?

A. Yes. Here I find where the total depth was 5,406, reamed and cleaned out to bottom, so that we reamed right along, and tried to keep the hole to full size at all times. [1822-542]

XQ.64: Did you use the same bit size all the way down?

A. Yes, whenever we would find a little extra wear on the side lugs of the bit it would indicate to us the hole was getting tight, and then we would go and ream that particular section.

XQ.65: Would you look at the end of this log and see what point in the history of the well it takes you?

A. The end of this log book here?

XQ.66: Yes.

A. The total depth 7,693, the driller records, "Standing cemented," and then that is just washing out boilers after that, and housekeeping.

XQ.67: Does that log show any of the cementing operation at all?

A. Yes, on the 4:00 o'clock tour on December 31, it records "Cemented at 7,485, with 650 sacks of Victor Oil Well Cement, cementing done by Perkins."

XQ.68: As I recall, this pipe was run to about 200 feet from the bottom.

A. Now we have an exact depth, It was cemented at 7,493.

XQ.69: So that was just about 200 feet off bottom?

A. Yes. That is what I said right along.

XQ.70: Do you recall during the cementing operation whether the pipe was worked, reciprocated?

A. We always moved our pipe up and down at different [1822-543] points in the cementing operation.

XQ.71: Do you remember in this particular case?

A. No, I don't.

XQ.72: You do not? A. No.

XQ.73: This particular pipe stuck three times pretty close to the bottom, did it not?

A. The first time it was over, it was approximately 2,000 feet from bottom the first time it stuck.

XQ.74: And the second and third at 1,000 feet—

A. I said 1,000 feet, approximately, by memory, but after that I don't remember just how far from bottom it was the third time.

XQ.75: What was the cut of the oil that was produced, do you recall?

A. Well, the well produced clean oil. I don't know what the original cut, when it first came on production, was, but it was a satisfactory job and it was clean oil, marketable oil, which is less than 3 per cent.

XQ.76: What is the gravity of the oil that is produced in that location?

A. I think the original gravity in that well was between thirty-one and thirty-two. That is usual there.

XQ.77: What was the length of each of the pipe joints or pipe sections in this well?

A. I would say approximmately 30 [1822-544] feet.

XQ.78: And you are sure they were screwed casing?

A. Oh, definite.

XQ.79: Do you have any other record or log besides this on this particular well?

A. I would say, no.

XQ.80: Have you looked to see? A. No.

XQ.81: Would you look and see if you have?

A. I think it would be a waste of time. We just relied upon this Daily Driller's Report for any activity at the well, and I wouldn't know where to look.

XQ.82: Well, if you can find anything, would you let us know?

A. What do you have in mind?

XQ.83: I was just wondering whether or not there was any log that supplemented this to indicate what was done subsequent to what appears in this log here. There are no production tests here at all.

A. I would be quite sure we had no other record in connection with the drilling and landing of the casing or cementing other than this.

XQ.84: Did you have any production tests at all on the well?

A. We put it on production. I don't know what you mean by "production tests."

XQ.85: I thought the companies usually have a

(Deposition of Laurence C. Kelly.)
production [1822-545] log for a period of time
after——

A. Oh, we would have the—we definitely would have the pumper's-gauger's report. Every four hours we took our gauges. We would have a report showing the production on the well every four hours for some months.

Mr. Scofield: I think then if you will give me this letter that is all I have to ask.

The Witness: All right.

Redirect Examination

By Mr. Lyon:

RDQ.1: Let me ask you this question, Mr. Kelly: You state that this casing was stuck three times?

A. I am sure twice, and the third I believe. That is what I stated here.

RDQ.2: The casing was freed, was it not, after it was stuck?

A. Oh, we landed it exactly where we had planned to originally.

RDQ.3: It was freed by what method?

A. By using the cement company's pumps, and putting on a pressure of 2,600 pounds per square inch.

RDQ.4: Was mud circulated during the time?

A. That is what we did with those pumps, we got the mud moving.

RDQ.5: You got the mud moving? [1822-546]

A. And that freed the pipe.

RDQ.6: Were any scratchers run on any other size pipe in this well, to your knowledge, other than on the 65% inch casing?

A. Definitely not.

RDQ.7: You have stated the joint length of casing used was 30 feet. Do you definitely recollect it was not 40 feet?

A. No. I am combining my later knowledge of the easing in making that statement. It was older casing. It was only after that time that I remember of ever encountering easing in 40-foot plus lengths. I had had no experience with anything over that range up to this time.

RDQ.8: It was a No. 2 Range easing, then, as you recall?

A. I have forgotten what "No. 2" means.

RDQ.9: That is 30 feet.

A. That is what it is then. I have not drilled for 12 years. We finished four more wells there at Rosecrans, and then we stopped drilling.

Mr. Lyon: That is all, Mr. Kelly.

Recross-Examination

By Mr. Scofield:

RXQ.1: There is one question I neglected to ask you, [1822-547] Mr. Kelly, on cross-examination. You signed an affidavit in connection with this matter, did you not? A. I did, yes.

RXQ2: You also indicated on your direct examination you could not distinguish between either of these scratchers, that is, Exhibit A and Exhibit 2, which are before you on the table?

A. As to the type that went in our well, you mean?

RXQ.3: Yes, sir.

A. No, I could not say which type.

RXQ.4: Now, in your affidavit there is a statement here to the effect: "The scratchers included a ring having stiff wire whiskers extending from the ring, and the wire whiskers were bent sideways."

A. Yes, right.

RXQ.5: Do you recall that? A. I do.

RXQ.6: Then can you distinguish between the two scratchers which you have before you?

A. I would say I could not.

RXQ.7: Well, now, one of them is bent sideways, the other is not.

A. Isn't this sideways?

RXQ.8: Do you think that that is sideways?

A. To me both of them are sideways. [1822-548]

RXQ.9: To you both of them are sideways?

A. Yes, I could not change my phraseology on that.

Mr. Scofield: That is all. [1822-549]

* * *

DEPOSITION OF K. C. NAEGLE

a witness produced on behalf of the Petitioner, having been first duly sworn to testify the truth, the whole truth and nothing but the truth, upon oral interrogatories, deposed and testified as follows:

Direct Examination

By Mr. Lyon:

Q.1: Will you state your full name?

A. K. C. Naegle.

Q.2: What is your address?

A. 6110 Myrtle, Long Beach.

Q.3: What is your occupation?

A. Oil field worker and mechanic.

Q.4: How long have you been working in the oil fields?

A. Almost 16 years.

Q.5: For whom were you working in 1939?

A. Thomas Kelly & Sons.

Q.6: How long did you work for Thomas Kelly & Sons?

A. Oh, when did I quit there? I don't remember exactly, it must have been in—'37, the last of '37 until 1940—I am going to say '45. I might have a year or two of a difference there.

Q.7: You mean you worked for them between two dates? A. Yes, sir.

Mr. Scofield: 1937 to 1945. [1822-554]

The Witness: 1937 to 1945, yes, I worked for them for about eight years. There may be a little variation in there. I can't remember it. I didn't check up on it.

Q.8: (By Mr. Lyon): I hand you a page of a

book which has been marked Petitioner's Exhibit C, and I will ask you if after the printed letters "RH" that is your signature?

A. Yes, that is my writing.

Q.9: What is that writing?

A. "K. C. Naegle."

Q.10: Did you ever work on the Thomas Kelly & Sons McMillan No. 1 Well, on a community lease in the Rosecrans Field?

A. Yes.

Q.11: When?

A. Well, when it first started until they finished it, and they finished just about Christmas time or—New Year's time, rather.

Q.12: Of what year? A. In '39.

Q.13: That is, finished somewhere, I take it from your answer, between Christmas and the first of the year?

A. Yes.

Q.14: In 1939?

A. Yes, I worked on it just before New Year's. I remember just before New Year's. I happened to be [1822-555] off the next day for New Year's.

Q.15: I am trying to get rid of the discrepancy between New Year's of 1940 and the end of the year 1939. Now, was that the period of time you were talking about?

A. Yes, I worked between 1939.

Q.16: Do you recall any particular device having been used in that well?

A. What do you mean by that?

Q.17: Any particular tool or structure?

A. Nothing more than what—you mean the

regular tools that we used in drilling a well or in the—well, what wells, the casing and things?

Q.18: On the casing, anything different used on the casing?

A. Yes. These I can see here are the first I had ever seen them used, and also that it was the first time I had ever seen them weld the casing together instead of screwing it on.

Q.19: They used welded casing on this job?

A. They used welded casing.

Q.20: That is, the joints between the casing were welded?

A. Were welded.

Q.21: They used these particular devices, you say you see them before you, and you were referring them to [1822-556] Exhibit A, which is this device, and Exhibit 2, which is the device on your right-hand side. Were such devices used on the casing in this Kelly Well?

A. Very similar, as near as I could remember. I have seen these since that time, and so—but they were very similar to that. They looked just exactly like it, as near as I could remember it at the time.

Q.22: How were these devices, which you say were like either Exhibit 2 or Exhibit A, mounted on the casing?

A. Well, they were just put on the pipe, and they were put on loose on the pipe, and welded above and below, as near as I remember, because I remember commenting at the time that why weld above, because they would come up to the joint, and that was as far as they could come.

Q.23: You say they were welded above and below. What do you mean?

A. Well, there was a space in between so that they would move up and down.

Q.24: Would they move in any other way?

A. They would move around, because we had blocks out on the casing we had to roll them over on, and we were pulling them in on kind of a roller affair, and we jammed one or dropped it when we were raising it.

Q.25: Yes.

A. And I remember the guys went out to move it, [1822-557] to see if it would turn.

Q.26: Did it turn?

A. Yes, we didn't hurt it at all. It didn't really hit it. It hit the pipe.

Q.27: How many of these scratchers were there used on that occasion, do you remember?

A. No. I could say several, but I don't know. I wouldn't have any idea. I don't remember how many. There were some used.

Q.28: There was more than one used?

A. Oh, yes, because I remember one was on one joint and I remember two on another joint. Other than that I don't know how many were used.

Q.29: I hand you a drawing, Exhibit B, and ask you if you have seen that drawing before.

A. Yes, I think so. I have seen one very similar.

Q.30: You saw one of those, a copy of that same drawing, when you executed that affidavit in this matter, did you not?

A. Yes, that's right.

Q.31: Now, does that drawing in any way indicate to you the way that the scratchers were mounted on the casing in this Kelly Well?

A. Yes, that is about as near as I can remember it, being like that. The distance here, I wouldn't say how far, [1822-558] whether it was the distance you have marked on here.

Q.32: You see where there is marked between the beads that are welded to the casing the markings "9"—no.

A. "6," I believe.

Q.33: "6 2 6." A. Yes.

Q.34: That is what you mean when you say you are not certain about that distance?

A. I don't know how far, whether that was correct or not.

Q.35: But these little spots or beads that are above or below the easing indicate the manner in which the beads were welded to the easing?

A. Yes.

Q.36: At the Kelly Well? A. Yes.

Mr. Scofield: Objected to as leading.

The Witness: These were a stopper for this, and these are welded on. Why they didn't—one was very near the top joint, and I said, "Why didn't they just put that on here, because this welding job here would stop it."

Q.37: (By Mr. Lyon): How far below the end of the casing, in that particular casing did they weld the beads, do you remember?

A. How far below the end? [1822-559]

Q.38: Yes.

A. On one it wasn't too far below, that is, I would say, oh, six or eight feet probably.

Q.39: Is the distance indicated on Exhibit B between the beads in any way comparable with the distance apart between the beads as they were welded on the casing at the Kelly Well?

Mr. Scofield: That question is objected to as leading.

Q.40: (By Mr. Lyon): Is it in any way comparable?

A. It is very similar.

Q.41: That is, the total distance between beads on the drawing has indicated it 14 inches. You wouldn't want to say it wasn't 18 or 20 inches or 12 inches; is that what you mean?

A. No, I wouldn't say that it was, how far it was, because I know that it moved, and the distance, I wouldn't say how far they were.

Q.42: But the distance wasn't a matter of feet?

A. No, not too far particularly. I don't know just how far it was. I know they moved, and I figured at the time that it was probably a stretch, you know, they could move in, so that they could move a little bit up and down.

Q.43: Do you remember which way the wires extended in the scratchers that were used at the Kelly Well?

A. As I remember, they came out and went off on an [1822-560] angle.

Q.44: An angle which way?

A. Well, it would be, come straight out and then off on—to an angle such as—

Q.45: I will show you two scratchers. One is Exhibit 2, Applicant's Exhibit 2, and the other is Petitioner's Exhibit A. I call your attention to the fact that in one the wires come out straight, and in the other they go at an angle.

Mr. Scofield: I want to caution you before you give this answer, you are under oath.

The Witness: Yes.

Q.46: (By Mr. Lyon): You understand in all your answers you are under oath, don't you?

A. Yes, I understand that.

Q.47: Do either of these scratchers, Exhibit A or Exhibit 2, correctly show, to your recollection the extent of the wires, and if so, which one?

A. This is the one that I would pick.

Mr. Lyon: The witness has picked Exhibit A. That is all. [1822-561]

DEPOSITION OF THOMAS RUTHERFORD

a witness produced on behalf of the Petitioner, having been first duly sworn to testify the truth, the whole truth and nothing but the truth, upon oral interrogatories, deposed and testified as follows:

Direct Examination

By Mr. Lyon:

Q.1: Will you state your full name?

A. Thomas Rutherford.

Q.2: Where do you reside?

A. Now, 1992 Lime Avenue, Long Beach.

Q.3: What is your occupation, Mr. Rutherford?

A. Well, welder mostly.

Q.4: How long have you been in the welding business?

A. Oh, roughly 25 years.

Q.5: Do you operate your own business?

A. Sometimes.

Q.6: Sometimes, and sometimes work-

A. For others.

Q.7: For wages? A. That's right.

Q.8: In 1939 were you operating your own business?

A. No.

Q.9: Were you working for some particular company [1822-593] at that time?

A. Yes, Thomas Kelly & Sons.

Q.10: How long did you work for Thomas Kelly & Sons?

A. Oh, well, at that particular time just a few months.

Q.11: What particular time was that?

A. Well, the time they were drilling those wells there in—well, Compton on—

Q.12: Were you working at that time strictly as a welder, or as a combination welder and roughneck? Did you confine all your activities to welding?

A. No.

Q.13: You worked as a roughneck also?

A. No.

Q.14: Well-

A. At that time I don't know what you would call it or term it as, but I was—well, at the beginning I was roughneck and welder, yes, but afterwards I would answer the telephone, go to work at 8.00 o'clock in the morning until—I mean in the evening, until 8:00 o'clock in the morning, and would be like an errand boy for the drillers, and so on, and like that, answer the telephone and get them anything they wanted to have for their breakdowns.

Q. Some of the time they didn't let you do either [1822-594] roughneck or welding?

A. At that time, no, I didn't roughneck, no.

Q.16: Did you work on the McMillan No. 1-

A. Yes.

Q.17: ——Well of Thomas Kelly & Sons?

A. I did, yes.

Q.18: Where was that well located?

A. I can't give you the streets, on Compton Boulevard—Avenue, a block east of Main Street on Compton Avenue.

Q19: That was on the Rosecrans Field?

A. I guess you would call it the Rosecrans Field, yes. I guess it is.

Q.20: In Los Angeles County here?

A. That is right.

Q.21: When did you work on that well?

A. Well, it was in 1929, just—

Q.22: 1929? A. December.

Q.23: 1929 or 1939?

A. '39, and it was in December, because it seems like to me that they sealed up the well and shut down over Christmas, something like that, I forget now exactly, New Year's, I forget, one of the two. So it would make it in December, as near as I can remember on [1822-595] that.

Q.24: I will refer you to Petitioner's Exhibits C and D, and to the midnight to A.M. tour on both Exhibits C and D, and this is Exhibit C and this is Exhibit D, and I ask you if that is your signature. Look at both of them.

A. No, and again, no.

Q.25: That is not your signature?

A. No, but I know whose it is.

Q.26: Whose is it? A. My brother.

Mr. Scofield: Whose?

The Witness: My brother, If you will notice it is a "J."

Q.27: (By Mr. Lyon): That is right. Your brother was working in the same well at the same time, was he?

A. Yes, he must have been, but I don't recall it somehow.

Q.28: Did you sign the log book, working in that capacity?

A. I don't think I did, because they put me on a monthly salary during that operation, during the time that that well was being drilled, for that one well only.

Mr. Scofield: What is your brother's name, Mr. Rutherford? [1822-596]

The Witness: Pardon?

Mr. Scofield: What is your brother's name?

The Witness: James.

Q.29: (By Mr. Lyon): Did you perform any welding operations at the McMillan No. 1 Well in December of 1939?

A. Well, I done the welding, most of it. I didn't do all of it, but I did most of it.

Q.30: What welding did you do?

A. Well, the term is rigging up of the drilling equipment from the time they installed the machinery, their drilling equipment machinery.

Q.31: What welding did you do in that capacity?

A. Well, in what way?

Q.32: Did you weld anything, any metal together of any kind?

A. Of course.

Q.33: What?

A. Pump suctions and water lines, steel lines.

Q.34: After the rig was set up did you do any other welding?

A. Well, any breakdowns, any bolts broken or any other necessary welding to keep the—well, the rig, as we call it, running.

Q.35: During the drilling operations did you do any welding? [1822-597]

A. Oh, no, my capacity from then on was sort of a, I guess they call it a nipple chaser, I guess. I didn't have any duties other than that, as far as any say-so about the well, what to do, or anything like that, no. I just——

Q.36: Did you weld any sections of the easing together?

A. Well, I welded the shoe joint on the pipe, on the string pipe. That is what you are referring to?

Q.37: I am referring to any welding. You welded the shoe on the bottom of the casing?

A. I did that.

Q.38: Did you weld anything else on the casing?

A. Well, you know, I said once that I welded the scratchers, as they call them, on the pipe, but since I have had a chance to refresh my memory on that, why, how them scratchers were put on, to this day I will be damned if I know.

Q.39: You just don't know?

A. I don't remember, but I said once they were welded on.

Q.40: Did you weld any beads around the pipe at any time, the casing in this particular No. 1 Mc-Millan?

Mr. Scofield: The Patent Office will note that the witness has just answered that he did not recollect how [1822-598] these scratchers were put on the casing.

The Witness: No, I don't remember just exactly how them things were put on. I did say once they were welded to the pipe, yes. Well, I know that there was something put on there, and I done all the welding on that particular job, on the casing job. There was other things besides these things put on there. There was centralizers or equalizers, and the shoe joint was all welded on.

Q.41: (By Mr. Lyon): The centralizers were welded on?

A. Well, they were welded. There is two ways of putting them on. At that time I don't remember how they were put on.

Q.42: You don't remember whether they were welded or not?

A. They were welded, put on the pipe, and then there is a stop put on there, so that they won't just travel all the way up and down the pipe. They wanted those centralizers to stay more or less in one spot on the pipe.

Q.43: Well, was there anything different about those scratchers?

A. Well, there must have been, but I can't remember it.

Q.44: You have given two affidavits in this matter? [1822-599]

A. Yes, I know it, yes. I am all fouled up on the whole thing.

Q.45: You first gave an affidavit. Before you gave this first affidavit who called on you about this matter?

A. Well, what do you mean, called me at the house?

Q.46: Yes, who talked to you?

A. Well, there was Oscar Gay and a fellow by the name of Hall. I don't know their initials, his initials.

Q.47: Which Hall was it, the one sitting here?

A. I don't see him in here.

Q.48: An older man than the man with the glasses on?

A. This one? (Indicating.)

Q.49: Yes.

A. Oh, yes, an older man, not so heavy.

Q.50: Did he introduce his name to you as Jesse E. Hall?

A. I think he was, yes.

Q.51: He came to you with Oscar Gay, who is sitting over there in the corner?

A. Yes. Oscar.

Q.52: How long have you known Oscar Gay? [1822-600]

A. I never had met him before.

Q.53: Had you met Jesse Hall before?

A. No, I never saw the man.

Q.54: What did Mr. Gay tell you?

A. What did he tell me?

Q.55: Or Mr. Hall tell you, when they came to see you?

A. They didn't tell me anything.

Q.56: They came to see you?

A. That's right.

Q.57: Did you talk to them?

A. Sure, I talked to them.

Q.58: What did he say?

A. What did he say?

Q.59: What did either Jesse E. Hall or Oscar Gay say to you?

A. Well, they asked me about these things, if I had put them on the pipe, did I weld them on the pipe, or so on and like that. That is where I made that affidavit at that time. Right now I still don't remember how them things were put on the pipe, welded solid or otherwise.

Q.60: Where did this conversation take place?

A. At my home.

Q. 61: Did you talk to them at more that one place?

A. No, they were there about five minutes at the [1822-601] house.

Q.62: Did they present you with this affidavit, did you sign it?

A. I went down the next following morning to their offices on—in Signal Hill, on—they asked me to make out, to sign that affidavit, and I read it, and I figured: Well, that's the way it was.

Q.63: As I understand it, they gave you a check at that time for your time and trouble?

A. Later they sent me, mailed me a check.

Q.64: And later Mr. Gay also gave you a \$100 bill, didn't he?

A. Yes, he did, yes.

Q.65: Where was that?

A. I don't remember that exactly. It was at the house, I think.

Q.66: At your home? A. Yes, sir.

Q.67: When?

A. Oh, I don't remember that, several days later.

Q.68: Is that the time you signed this first af fidavit?

A. No, it was after.

Q.69: Why did he give you the one hundred dollars? [1822-602] A. Well, for my trouble.

Q.70: He had already given you a check for your expense and trouble, hadn't he?

A. Well, that come later.

Q.71: How much was the check for?

A. \$10.

Q.72: \$10? Now, you were with them, you say about five minutes the first time, and how long did it take you to go down to their office and sign this affidavit?

A. Well, about four hours I was there, waiting for someone to come up.

Q.73: About four hours? A. Yes.

Q.74: That is all the time you spent on it?

A. Yes, that's about all the time.

Q.75: And he came by then after you had signed the affidavit and gave you this one hundred dollar bill. It was not one hundred dollars in any other form, was it?

A. Oh, a one hundred bill, yes.

Q.76: A one hundred dollar bill, and did he say anything to you when he gave it to you?

A. He didn't say a word, sir.

Q.77: Didn't you say anything?

A. Well, it was in an envelope.

Q.78: It was in an envelope? [1822-603]

A. It wasn't sealed, but it was in an envelope, and he said, "Here, here, take this," or some words to that effect.

Q.79: And that is all that was said?

A. Yes.

Q.80: And you did not say anything?

A. No, I didn't.

Q.81: You did not open the envelope and look to see what was in it?

A. Not until after he was gone.

Q.82: Well, did you make any effort to return it to him at any time?

A. What are you going to do?

Q.83: I am just asking you. Did you ever contact him?

A. I needed some money at that time, and I figured, well, easy come, easy go. If he wanted to hand out one hundred dollar bills, what's the better, I'll take them.

Q.84: And you never endeavored to find out why he gave you the one hundred dollar bill?

A. Well, just for my trouble in—well, for making out this affidavit. I imagine it was worth it to him.

Q.85: And that is all you ever did for [1822-604] him, and the only time you ever saw Oscar Gay?

A. That's right. Yes, sir, I never saw him before, prior to this business.

Q.86: You never saw him afterwards?

A. Well, I haven't seen Oscar for, oh, up until now, for a year or more, oh, longer than that, I guess.

Q.87: How long had you known Gay before?

A. I didn't know him.

Q.88: This is the first time you ever saw him, was when he called on you with Jesse E. Hall, with reference to this McMillan No. 1 Well; is that it?

A. Yes.

Q.89: And the last time you saw him with respect to that was the second time you had seen him, and he handed you a one hundred dollar bill in an envelope without saying a word?

A. That's right; he did, yes.

Q.90: And since then you haven't seen him until today?

A. I haven't, no.

Q.91: Still you call him by his first name, Oscar?

A. Everyone does.

Q.92: Was Jesse E. Hall present when he gave you this one hundred dollar bill? [1822-605]

A. No.

Q.93: He sent you this check. Was that a check of the Weatherford Tool Company?

A. That's right, yes. It was from Texas, if I recall, from in Texas, Texas.

Mr. Scofield: Will you read the answer?

(The answer was read by the reporter.)

The Witness: It came from Texas, somewhere down there. I don't remember now.

Q.94: (By Mr. Lyon): You say that Mr. Gay was alone when he gave you this one hundred dollar bill in the envelope?

A. As near as I can remember now.

Q.95: Where did he give it to you?

A. Just after he left, went out the door of the house, he handed it and closed the door and walked out.

Q.96: Had he been calling at your house?

A. Yes; I forget just what that was. He didn't call there; he said, "Here, take this."

Q.97: He was coming out of your house, he had been in there?

A. Yes.

Q.98: And he had been in there talking to you about this well matter?

A. Well, it was pertaining to that.

Q.99: What did he say at that time? [1822-606]

A. You got me: I don't remember.

Q.100: You can't remember a thing he said? The only thing you can remember that he said is that when he left was, "Here, take this," without telling you what it was, why he was giving it to you?

A. No, he didn't.

Q.101: Or did he say, "Take this one hundred dollar bill in an envelope," did he say that?

A. No, he didn't.

Q.102: He didn't tell you what it was?

A. He just handed me the envelope and—as he went out the door, and he closed the door, and that was the end.

Q.103: He never said a word?

A. As he handed the envelope, what was in it, I didn't know.

Q.104: He didn't say anything when he handed it to you?

A. Not—no.

Q.105: And you can't remember a thing that he said when he was in the house?

A. Well, he wanted to be sure that I remembered about welding these scratcher things on. and so on like that.

Q.106: He came out again to be sure [1822-607] you would remember that?

A. The exact conversation, I couldn't recall all of that.

Q.107: And to be sure that you remembered that he handed you a one hundred dollar bill, is that right? Is that what you mean?

A. No, no, I don't.

Q.108: He didn't hand it to you for any other reason, did he?

Mr. Scofield: That is argumentative. Objected to as argumentative.

Q.109: (By Mr. Lyon): Go ahead and answer.

A. What?

Q.110: Go ahead and answer.

Mr. Scofield: I just objected to his question because it is argumentative.

Mr. Lyon: You don't pay any attention to what he says.

Mr. Scofield: Yes, you pay attention to what we say, but you can go ahead. If you care to answer the

(Deposition of Thomas Rutherford.) question you may do so. You might read him the question, Mr. McClure.

(The question was read by the reporter.)

The Witness: Well, I can't think of any—just presumably that would be the reason. [1822-608]

Q.111: (By Mr. Lyon): At the time that you signed the second affidavit who called on you?

A. Oh, the second? Barkis and Wright.

Q.112: Both of them together? A. Yes.

Q.113: Where did they call on you?

A. At work.

Q.114: At work? Where were you working?

A. I was working for a lumber company on Del Amo and Alameda.

Q.115: At that time didn't you tell Mr. Barkis and Mr. Wright that you mounted these scratchers on a six and five-eighths-inch easing as you were told to mount them by Barkis and Wright?

A. Well, I have had time to think this thing over.

Q.116: Just answer that question.

Mr. Scofield: Let him finish.

Q.117: (By Mr. Lyon): Didn't you tell them that at that time?

A. Repeat that question.

Q.118: I said at the time that Barkis and Wright called on you before you gave this second affidavit didn't you tell them that you mounted those scratchers on the six and five-eighths-inch casing as in accordance with [1822-609] the instructions given you by Wright and Barkis?

A. Well, you know, I put them on, I guess I put them on. I welded whatever was on there, but I don't remember how them things went on there.

Q.119: Under whose directions were you working?

A. Well, Earl Sweetzer was the drilling superintendent, I guess that's his title.

Q.120: Didn't Earl Sweetzer tell you to mount them as you were instructed to by Wright and Barkis?

A. I don't remember that at all.

Q.121: You don't remember that? A. No.

Q.122: Do you remember how many that you mounted?

A. No, I don't.

Q.123: Had you ever mounted any scratchers before that time?

A. No, I never saw them before.

Q.124: Somebody had to tell you how to mount them, didn't they?

A. Well, I guess somebody told me how to put them on.

Q.125: Did you ever meet Mr. Wright or Mr. Barkis before the time they called on you for this second affidavit? A. No. [1822-610]

Q.126: You did not see them at the McMillan No. 1 well?

A. I don't remember seeing them there.

Q.127: At the time Mr. Barkis and Mr. Wright called on you before you signed your second affidavit, didn't you tell them that Jesse E. Hall and Oscar Gay, before you signed your first affidavit, merely stated to you that there was a controversy

over the design of the scratchers, and that the manner of mounting the scratchers on the casing was of no importance?

A. Yes.

Q.128: They told you that then? A. Yes.

Q.129: On March 26, 1952, before the notary you swore that the following was a true statement of facts: "That I mounted a total of about 20 scratchers on the bottom four or five joints of the casing. That the casing was placed on skids so that the joints of casing could be rolled without interfering with the wires. That I welded a row of beads or stops around the casing about six inches above and below each scratcher and I did not weld the scratcher to the casing. That the scratcher was entirely loose on the casing between the rows of beads or stops"?

You swore that that was a true statement at that time, didn't you? [1822-611]

A. Yes, I did, yes.

Q.130: Is your recollection now any better than it was then?

A. No, it isn't. I will tell you the truth when I tell you I don't remember how them things were put on there, whether that was true or the other one was true, and I say I did the welding on the job, too.

Q.131: At the time you worked on this McMillan No. 1 Well you did not know either Barkis or Wright, did you?

A. I had seen Barkis coming out of Kelly's

office on Signal Hill a time or two. I knew his brother, that's all, not him, prior to that.

Q.132. You had seen Barkis on the Kelly property before that time?

Λ. Coming out of the office that they maintained on Cerritos Avenue.

Q.133: Do you remember anything about the scratchers that were mounted at that time on the casing at this McMillan No. 1 Well?

A. I never seen the things before, prior to that.

Q.134: Do you remember what they were like? You were there when they were put on the casing, were you?

A. They were put on, and just slid up [1822-612] on there, and, as far as I was concerned, well, they were on there, and that's all there was to it.

Q.135: All that you saw that they were just slid on a casing, and they were on?

A. Yes.

Q.136: And you did not do anything about them yourself?

A. There must have been some welding done, with all this fuss being made over them, why—

Q.137: But you didn't do any of it yourself?

A. What do you mean, didn't do what?

Q.138: You didn't do any welding?

A. Well, I told you I welded the shoe joint on the——

Q.139: I mean you did not do any welding on the casing when these scratchers were slid on the joint, as you say?

A. I told you I don't remember, and I don't.

Q.140: There were two scratchers here in front of you, Exhibit A and Exhibit 2. Can you tell me what the scratchers you saw slid on the casing looked like?

A. Them things look alike to me. Look, I didn't pay no attention to them things, because it wasn't my business to see what them things there looked like. It was in the afternoon, and it was dark, and I had nothing [1822-613] to do with the, that is, other than slide them on the pipe.

Q.141: But you saw them slid on the pipe?

A. Yes, I saw them put on the pipe, and I had to remove the proceedor to put them on.

Q.142: You saw the protector removed so that these could be slid on?

A. You have to take the protector off to get them things on there.

Q.143: I am asking you if you saw them, not supposing something. A. No.

Q.144: I take it, Mr. Rutherford, when you say something you state it to be a fact, not that you are supposing something.

A. O.K.

Q.145: But you did actually see the scratchers slid on the casing?

A. Yes, yes.

Q.146: You haven't ever been paid anything by B & W, by Bruce Barkis or Kenneth A. Wright, have you?

A. No.

Q.147: You haven't been promised anything?

A. No, I haven't, nothing.

Mr. Lyon: That is all. [1822-614]

Cross-Examination

By Mr. Scofield:

XQ.1: Mr. Rutherford, as I understood your testimony, after you had seen Oscar Gay and this other Mr. Hall at your home you then went some place to sign this affidavit?

A. Yes; their office on Signal Hill.

XQ.2: There in Long Beach?

A. The Long Beach office, yes.

XQ.3: Do you see here at the table anybody else that was there at the office?

A. That gentleman over there.

XQ.4: You are referring to Mr. Subkow here at the end of the table, with the glasses?

A. I don't know the man's name, but he was there.

XQ.5: He was there?

A. He was the one that wrote the—well, statement, I guess.

XQ.6: The affidavit?

A. He was the gentleman that—why I waited so long, for him.

XQ.7: What do you mean you waited so long for him?

A. Well, I was due on a job at 8:00 o'clock in the morning, and I didn't get there until [1822-615] 12:00.

XQ.8: And you had to wait for Mr. Subkow to get there?

A. Yes, it was a very foggy morning, and he had quite a time driving down from wherever he lives, down to the office down there.

XQ.9: What did he do after he got there?

A. He just grabbed a scratch pad and started writing on it, just asking questions.

XQ.10: Did he ask you questions?

A. Well, no; it was Mr. Hall and Mr. Gay over there.

XQ.11: Did he asked you any questions at all about this matter?

A. He didn't, no.

XQ.12: And he wrote this out while you were there? A. That's right; yes.

XQ.13: And then did you read it?

A. Pardon me, he wrote it in long hand. It was later typed up.

XQ.14: Did you wait until it was typed?

A. That's right.

XQ.15: There at the office?

A. No, no, no, no.

XQ.16: What happened to it then? I want to get the sequence of events. What happened after he wrote this [1822-616] in longhand, and while you and Oscar Gay and Mr. Hall and Mr. Subkow were there he was writing this in longhand?

A. That's right.

XQ.17: Then do you know what happened?

A. Well, I signed that, and I went on.

XQ.18: Where did you sign it?

A. In that office.

XQ.19: While it was in longhand?

A. Yes. They must have a copy of it, I guess.

XQ.20: Then did you see Mr. Subkow after that? A. No. no.

XQ.21: You didn't see Mr. Subkow at any later date?

A. Not until now.

XQ.22: When did Mr. Gay give you this one hundred dollars?

A. Well, like I say, just as he left the house, he just stepped out the door, turned around, handed this envelope, see.

XQ.23: Was this on the same occasion when all of these men were there in the office, or was it at some later time?

A. Well, it was the time that—after this was wrote up in longhand he came over to tell me to come down to the office, that it had been typed up, and for me to come down the following morning and sign the typewritten [1822-617] statement.

XQ.24: I see.

A. That was when that took place.

XQ.25: Then you went down the following morning?

A. Yes. I wasn't—it seems like I wasn't busy or wasn't doing any work that morning on any particular job or any particular rush, and I had a few minutes, so I drove by and signed this type-written statement.

XQ.26: You went to Mr. Gay's office on the second occasion? A. Yes.

XQ.27: In fact, you were there on both occasions? A. Yes, that's right.

XQ.28: And on the second occasion you went down to sign this—— A. Typewritten——

XQ.29: —typewritten paper?

A. Yes.

XQ.30: Who was there on the second occasion besides Mr. Gay?

A. Oh, an office man they have down there and Mr. Gay and a Mr. Hall.

XQ.31: Was Mr. Subkow there on the second occasion when you went to sign the typewritten copy?

A. I don't think he was. [1822-618]

XQ.32: Was Mr. Hall there?

A. Mr. Hall was.

XQ.33: Was Mr. Hall there? A. Yes.

XQ.34: On the second occasion with Mr. Gay?

A. Yes, that's—now, I think he was.

XQ.35: Try and recollect whether Mr. Hall was there when Mr. Gay gave you this envelope with one hundred dollars in it.

A. No, I don't think he was then.

XQ.36: You don't think Mr. Hall was there?

A. No; Mr. Gay came by and just said that the typewritten forms was made up, and for me to drop by in the morning and sign them, that they had them there, that the form in longhand wouldn't do. [1822-619]

XQ.38: (By Mr. Scofield): Let me state what you have indicated how this occurred, and see if my understanding is correct. At the first meeting, the first time you met these gentlemen—

A. Yes.

XQ.39: ——you went to Mr. Gay's office in Long Beach on Signal Hill? A. Yes.

XQ.40: Is that correct?

A. Yes, that's right, yes.

XQ.41: And there was there at that time only Mr. Gay and Mr. Hall, and Mr. Subkow had not come yet?

A. Yes, that's right. We waited on him.

XQ.42: Mr. Subkow then came in; is that correct? A. Yes.

XQ.43: And he wrote this affidavit out in long-hand? A. He did. [1822-620]

XQ.44: Did you sign it then?

A. Yes, I signed that one, yes.

XQ.45: You signed the one that had been written up in longhand? A. Yes.

XQ.46: Then you went home?

A. I went to work.

XQ.47: You went to work. Then the next day Mr. Gay, did he call you or did he come to your house?

A. He came—I forget when it was, but he came in the evening and said that the affidavit was typed up, and for me to drop by the office the following morning. It was along about—oh, along, I don't know, 7:00 or 8:00 in the evening.

XQ.48: He came by personally?

A. Mr. Gay did, yes.

XQ.49: He did not call you on the phone, but he came by personally to your home?

A. That's right.

XQ.50: And he asked you to come to the office the following morning?

 Λ . Yes, that's right.

XQ.51: And you went to the office the following morning?

A. Yes. [1822-621]

XQ.52: Had the affidavit been typed up?

A. It was waiting there for me to sign it.

XQ.53: Now, did you sign it, or did Mr. Gay say, "I won't give you this one hundred dollars until you sign it"? Did he say that?

A. No.

Mr. Lyon: He had already given you the one hundred dollars then?

The Witness: There was nothing about the one hundred dollars.

XQ.54: (By Mr. Scofield): Nothing said about the one hundred dollars?

A. Nothing said about the one hundred dollars.

XQ.55: Then you signed the affidavit?

A. Yes.

XQ.56: And then as you were going out he gave you the one hundred dollars?

A. Not in the office.

XQ.57: Not in the office?

A. Like I am telling you-

XQ.58: When did he give you the one hundred dollars?

A. Damn, you guys got it down in black and white. I told you. Look, I signed this—made up the longhand affidavit, all right. The following—I don't know if it was the following day or not, they

had a typewritten [1822-622] affidavit made up, or several of them, and I signed I don't know how many copies. All right. But, in the meantime, after signing the longhand copy Mr. Gay comes by the house, and said they had them typewritten, and wanted me to drop by the office the following day. The particular days and dates, I don't remember that, no, but that was the time, between the time the longhand and the typewritten, and before I signed the typewritten was when Mr. Gay handed me the envelope.

XQ.59: (By Mr. Scofield): When you had the first conversation with Mr. Gay did you tell him anything about your circumstances? [1822-623]

A. No, never a thing said about that, no.

XQ.60: That is, did you tell him that you had any hospital bills? A. No.

XQ.61: Had you been to the hospital for any reason?

A. No.

XQ.62: You had not been to the hospital for any reason?

A. No.

XQ.63: And you did not go to the hospital afterwards? A. No.

XQ.64: In your direct examination, in one of your answers you started out by saying, "I have had time to think." What did you mean by that?

A. Well, about several things pertaining to the drilling of that well mostly, the fellows that worked there, the drillers and things of that sort, nothing much compared with this business here.

XQ.65: You did not mean to indicate by that statement, "I have had time to think," that you had in any way given thought to these two affidavits?

A. Well, very little.

XQ.66: But I mean by that statement—

A. I recall that the pipe with these [1822-624] things were put on, they were on skids, like he read a minute ago in that other affidavit, in the second affidavit. They were laid on skids. That is one of the things that I hadn't thought of and, of course, I said they were in the beginning.

XQ.67: Do you recall whether there was a liner on this string of pipe? A. A liner?

XQ.68: Yes, a liner of any sort?

A. No, there was nothing like that, no.

XQ.69: Nothing like that on it? Do you know what a liner is?

A. You mean an outer—like a gravel packed liner?

XQ.70: A perforated liner?

A. Nothing like that there, no.

XQ.71: There wasn't anything like that on this particular string of pipe?

A. No, because they ran a liner later. They drilled—oh, I don't know whether they did or not. I had nothing to do with the——

XQ.72: Do you remember—

A. —with the operation of the well.

XQ.73: Do you remember whether they ran a liner in this particular well? [1822-625]

A. No, I don't. I don't remember whether they shot holes in there or whether they run a liner later.

XQ.74: What did your brother do on this particular well, do you know?

A. Oh, he was a well rotary helper, a roughneck.

XQ.75: Did he do any welding? A. No.

XQ.76: Do you know where these scratchers were put on this string of pipe? Were they at the top, middle or bottom, or where?

A. No, I don't.

XQ.77: You don't recall that?

A. No. [1822-626]

DEPOSITION OF ANN L. SIGEL

a witness produced on behalf of the Petitioner, having been first duly sworn to testify the truth, the whole truth and nothing but the truth, upon oral interrogatories, deposed and testified as follows:

Direct Examination

By Mr. Lyon:

Q.1: Will you state your full name?

A. Ann L. Sigel.

Q.2: By whom are you employed?

A. George Rice & Sons.

Q.3: How long have you been so employed?

A. 19 years, since March, 1934.

Q.4: What business are they in?

A. Printing and lithographer's business.

Q.5: What are your duties with the company?

A. Bookkeeping and secretarial work.

Q.6: Are you in charge of the books?

A. Yes, I am.

Q.7: How long have you been in charge of the books? [1822-634]

A. Well, since March, 1934.

Q.8: You have brought here a book. Is that one of the books you were in charge of?

A. Yes, it is.

Q.9: Will you let me see that book. There is a yellow page, which I have taken out. What is this book?

A. That is a record of work done in certain months. That, for instance, is March. 1940.

Q.10: March, 1940?

A. Jobs completed in March, 1940.

Q.11: The first page of that book is a Job Ticket, Job No. 8001. For whom was that job done?

A. That job was done for B & W, Incorporated, of Long Beach.

Q.12: What was the job?

A. It was for printing, "Wall Cleaning Guides."

Q.13: When was the wall cleaning guide work delivered to B & W?

A. That was delivered on March 14, 1940.

Q.14: In what quantity? A. 1,950.

Q.15: What were they?

A. These were apparently folders, 17 x 11, and folded one fold to $8\frac{1}{2}$ x 11.

Q.16: Do you recall the particular [1822-635] folder?

A. No, I am sorry, I don't.

Q.17: This record that you have read from, is that one of the regular records of George Rice & Sons?

A. Yes, it is.

Q.18: Who kept this particular record, do you know?

A. That ticket was written by Mr. Rice himself.

Q.19: That is, George Rice himself?

A. And the work was extended on it by myself, the work from the shop, various labor in the shop.

Q.20: That is, that appears on the back of the sheet, in which, for example, under the title, "Gather—399," there is an entry, "D 3-14, Work 439, Units 2." That entry is in your handwriting, is it?

A. Yes, that is.

Q.21: That entry was made when?

A. That entry was made, that was for work done on March 15, that probably was entered on March 15.

Mr. Scofield: May I look on with you and see that? Please just point out what you are talking about.

The Witness: They are talking about this bindery time. The last operation on the job is ordinarily wrapping. "439" means that. "D" means the girl who wrapped it and "3/14" is the date it was done.

Q.22: (By Mr. Lyon): Was that a one- or two-color job, can you tell from that record? [1822-636]

A. That was a two-color job.

Q.23: Do you know what the colors were?

A. Yes; they are marked here black and red.

Q.24: I notice the entry is for "Wall Cleaning Guides." You say that you are unable to identify the particular work; is that correct?

A. Yes; I do not recall the job itself.

Q.25: You have brought also with you a yellow sheet. What is this yellow sheet?

A. That is our ledger sheet from the Accounts Receivable Ledger.

Q.26: Who keeps that sheet?

A. That was kept by me.

Q.27: The entries on it are in your handwriting?

A. Yes, they are all in my handwriting.

Q.28: When were the entries made with reference to the date which they bear? For example, the first entry in there is March 21, 1940, and on what date was that entry made, do you know?

A. That is the day it was billed.

Q.29: That is the day it was billed, and the entry was made how soon after the billing was done, I mean the entry in this ledger?

A. I would say right after.

Q.30: Right after, and the billing as shown by [1822-637] that ledger was for how much money?

A. \$105.37.

Q.31: Was the work all completed prior to that time?

A. Well, the work was completed on March 14.

Q.32: And delivered on that date?

A. And delivered on that date.

Q.33: I hand you a photostatic copy of a check, and I ask you if you can identify that?

A. That is a check made out to the company for whom I work in a like amount, \$105.37.

Q.34: It bears a deposit stamp on the back. Whose stamp is that?

A. That is our regular bank endorsement. We still have that particular stamp.

Q.35: You recognize that as your stamp?

A. Yes, that is our stamp.

Mr. Lyon: I will ask that this photostatic copy of the check of March 25, 1940, be received in evidence as Petitioner's Exhibit PP.

(Photostatic copy of check referred to was marked by the Notary Public as Petitioner's Exhibit PP, and made a part of this deposition.)

Q.36: (By Mr. Lyon): I would like to ask a favor of you, [1822-638] if I can have this page of this record photostated, the B & W page you have testified to, and also that ledger sheet. Will that be all right?

A. Sure, that will be all right with the company.

Mr. Lyon: I would like to offer, subset to an agreement with counsel, photostatic copies of these records in evidence, the job ticket, the two sides of it, as identified by the witness, being Job No. 8001 as Petitioner's Exhibit QQ and the ledger sheet as Petitioner's Exhibit RR.

Mr. Scofield: I have no objection to having the reproductions offered.

(The documents referred to were marked by the Notary Public as Petitioner's Exhibits QQ and RR, respectively, photostatic copies of which are made a part of this [1822-639] deposition.)

DEPOSITION OF HENRY EARL SWEETSER called as a witness by and on behalf of the Applicant-Respondent, being first duly sworn, testified as follows:

The Reporter: What is your full name, please? The Witness: Henry Earl Sweetser.

Direct Examination

By Mr. Scofield:

- Q. What is your address, Mr. Sweetser?
- A. 332 Termeno Avenue, Long Beach.
- Q. What is your age?
- A. I was born in 1893, November 28th.
- Q. How are you employed at the present time?
- A. Superintendent for Herley-Kelley.
- Q. How were you employed, Mr. Sweetser, in December of 1939?
 - A. Superintendent for Thomas Kelly and Sons.
- Q. Was Thomas Kelly and Sons doing any drilling at that time? A. Yes.
 - Q. Where were they drilling?

(Deposition of Henry Earl Sweetser.)

- A. Rosecrans.
- Q. What wells were you drilling at the Rosecrans Field that you had charge of? [1822-646]
 - A. McMillen Number 1.
 - Q. The McMillen wells? A. Yes.
 - Q. How many were there?
 - A. Let's see, we drilled five altogether.
- Q. Did you drill a McMillen Community well number 1? A. We did.
- Q. What were your duties on that particular well?

 A. The well was drilled.
- Q. Were you in charge or were you a pusher or what were you?
- A. I was pusher and superintendent and the whole works.
- Q. Were you employed by Mr. Lawrence Kelly or was he one of the Thomas Kelly and Sons?
 - A. He was one of the firm.
- Q. What is your recollection about the drilling of that well; just give your recollection as best you can after these thirteen years or more about the drilling of that well, if you will?
 - A. Just what do you want to know?
- Q. I want to know what the circumstances were with regard to the casing; what you used; if you used any special tools on the easing and what your experiences were [1822-647] in running the pipe and placing the cement; just what is your recollection at the present time about the Community Number 1?
 - A. Boy, I will tell you, that is a pretty hard

(Deposition of Henry Earl Sweetser.)
question. If we had a drilling report out here, why,
we could tell. I drilled a lot of wells since then.

- Q. We have a drilling report or we had a drilling report. I show you a report of the oil and gas division, which has been offered here as Applicant's Exhibits 17A to 17F, inclusive, and ask you if you can identify that report?
- A. Yes; this is one we drilled on that McMillen Number 1.
- Q. Now, I would like to have you tell me—I would like to have you state, first, before you go over the report, if you have any independent recollection of the drilling and cementing of this well, this Community Number 1, before we go into the report; what recollection do you have of the drilling and cementing of that well?
- A. Well, I know we set the easing there and run these scratchers on it and had quite a time getting the easing in the hole and I think there was quite a number, about two or three times as long, getting the easing in the hole as it should have been.
- Q. Do you recall whether either Mr. Barkis or [1822-648] Mr. Wright were on the well?
- A. I sure do. They were there, by golly, from the time they put the scratchers on until we cemented it.
- Q. Do you recall anything more about the actual drilling operations and setting in the casing?
 - A. You mean actually drilling of the hole?
- Q. I am speaking now more particularly—you might state what size——

(Deposition of Henry Earl Sweetser.)

- A. We had no trouble drilling the hole. I think it was a ten and five-eighths hole. Down to where we figured the setting hole and the balance of the hole was a smaller hole, a rat hole, and it helped to set the liner in. After you get your easing set in and cemented and approved by the division of oil and gas.
- Q. Do you recall whether you reamed the hole at all?
- A. Well, I don't recall, but, by golly, I will tell you it would be remarkable if we didn't because I never drilled many holes that I didn't ream.
- Q. Do you recall whether or not you had a tailpipe on this easing?
 - A. I know we had a tailpipe.
 - Q. What is the purpose of this tailpipe?
- A. Instead of putting a running bridge in your casing it is used to put a bridge in below your casing. [1822-649]
- Q. Now, do you recall anything unusual about the running of the easing into the hole?
- A. We had a hard time getting it in there. It got loggy and we had to circulate the thing in there.
 - Q. Do you know what that was due to?
- A. Due to—in those days of drilling where we had a heavy wall cake on the walls, but you don't have any more. And probably these scratchers were pulling it down and making the pipe loggy. That is the only thing, you know, because we never run scratchers after that along those walls and we didn't have no trouble.

(Deposition of Henry Earl Sweetser.)

- Q. Did you ever use any scratchers after that particular well?
 - A. Yes; I have used a lot of them since then.

 O Did you ever use any more on those McMillon
- Q. Did you ever use any more on those McMillen wells?
 - A. No; I don't recall of using any more there.
- Q. When, after that first well was run, Community Number 1, did you next use scratchers of any sort?
- A. I don't think I ever used them with that company, but after I went to work for the company I am with now we run them on every hole we have drilled.
 - Q. When did you go with this present company?
 - A. In '43. [1822-650]
- Q. Why didn't you use them with the Thomas Kelly and Sons Company after that?
- A. We got into quite a bit of trouble with them when we first run them. It wasn't due to the scratchers, I would say, but it was due to the condition of the mud, the condition you had there.

In other words, mud to me is the principal thing of drilling a whole well, that is, to have good mud.

- Q. Well, now, after you had finally gotten the casing down to a position for cementing do you recall about the cementing of this well, Community Number 1?

 A. Well——
- Q. What independent recollection do you have about that?
- A. The cement was all right. The casting was perfectly free after we got it freed up. We circulated

(Deposition of Henry Earl Sweetser.) it a long while. And we got the cement in. We didn't have no trouble getting it in.

- Q. What did you do after you got the cement in? Did you make a test of any sort?
- A. Let me see it. I don't know how many days, I don't recall that. This should tell; four or five days, maybe.
- Q. And then did you make any tests of any sort?

 A. Yes. [1822-651]
- Q. Now, when you make these tests, do you have anybody present from the Oil and Gas Division?
 - A. You certainly do.
 - Q. Who is he—— A. They are the boss.
 - Q. Who do you mean by that?
- A. You just don't go ahead unless they give you an O.K. They have a man that represents the State and you got to prove to his satisfaction that you have a water shutoff.
- Q. Well, do you recall whether or not he gave you an O.K. on this well?
- A. Well, I don't know. I know that we recemented it a lot of times. They will give you an O.K. that you can go ahead and take a production test, but it runs into a lot of money when you do that.
- Q. Then you did recement the well, this Community Number 1?

 A. That is right.
 - Q. And what did you do after that?
 - A. After recementing it?

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- Q. Yes. A. Tested it.
- Q. Then did you find the well a producing well?
- A. Yes; it was perfectly clean. [1822-652]

Q. Now, if you will, Mr. Sweetser, will you put the oil and gas report of this well, Community Number 1, which is Exhibits 17A to F before you, and will you tell me what the condition of the well was, this well that you have testified about, on December 31, 1939?

Mr. Lyon: Just a moment. Mr. Sweetser, I would like to ask you a question. Did you ever see this exhibit, the pages, Exhibits 17A to 17F, before?

A. Not to read them, I don't know. Mr. Hall brought some papers with him. Was it these that you brought down (indicating)? He was at my house, but they were on a photostatic copy.

Mr. Lyon: Did you discuss those at that time?

A. Not very much, not extensively, because I told him I would be up here yesterday, which I wasn't.

Mr. Lyon: Did you ever see these papers or the originals of these papers or any copy of them before Mr. Hall presented them to you?

A. I was the one that dictated for them to be made out originally.

Mr. Lyon: Well, did you do that or Mr. Kelly?

A. He signed them.

Mr. Lyon: Now, you have got a sheaf of papers in your hands, some of which is the Division of Oil and Gas report. You don't say that you dictated that, did you? [1822-653]

A. Yes, they come off of my records.

Mr. Lyon: You didn't dictate it?

A. They are not dictated. They are taken off the records. That is what you absolutely do.

Mr. Lyon: The report here was formed by the Deputy of 17E and F; the deputy's name was what?

A. Which one are you referring to?

Mr. Lyon: I am referring to the Division of Oil and Gas report, 17E and F, the last two pages here. (Indicating.)

A. I haven't looked at them.

Mr. Lyon: You don't mean you dictated those?
A. No.

Mr. Lyon: You never saw those before?

A. Let's see, I will have to see what they are first. Yes, I had seen this before when they sent it in.

Mr. Lyon: You saw it when they sent it in?

A. When they sent it back. That is his report back to us.

Q. (By Mr. Scofield): When was that, Mr. Sweetser?

A. Well, this report back is dated here January 26, 1940.

Q. That would have been about the time you would have seen it? [1822-654]

A. Yes; they send them back to you. It might have been four or five days later before you get them, but that is when they would date them.

Mr. Lyon: Do you have any recollection of seeing this particular report at any time?

A. No; I don't have no recollection. I see them all the time, all different kind of ones.

Q. (By Mr. Scofield): Mr. Sweetser, let me

(Deposition of Henry Earl Sweetser.) mark the corner of that page as an exhibit number because we will be referring to it.

A. You always get those papers back from the Division of Oil and Gas.

Mr. Lyon: You always get them back but you may or may not have looked at them?

- A. They make them out and they give you an O.K. and approval and give it to you in writing. They give it to you verbally at the well and you can go ahead and after you get back they send them in writing.
- Q. (By Mr. Scofield): I have indicated in the right-hand lower corner the exhibit number that the individual papers have been given in the case. Now, would you describe for me from this report, Mr. Sweetser, what the condition of this well was on December 31, 1939; that is, on 17B?
 - A. Standing cemented. [1822-655]
 - Q. Had the cement been put in on that date?
 - A. Yes.
- Q. I show you a drawing and will ask you to state—first, I should like to have the drawing which is being submitted to the witness marked as Applicant's Exhibit 25 for identification. I will ask you to state whether or not that drawing shows the condition of this Community Number 1 will on December 31, 1939?

Mr. Lyon: I think this is entirely a leading method. Let the witness explain the condition of the well. You are giving him a drawing and asking him if his interpretation of this is correct and that is (Deposition of Henry Earl Sweetser.) not a proper method of examination. That is entirely leading.

Mr. Scofield: Show him the drawing.

- Q. (By Mr. Scofield): Now, from the report can you state whether or not the drawing shows the well condition of Community Number 1, McMillen Lease, on December 31, 1939?
- A. It looks all right to me. There is only one mistake in it.
 - Q. You say---

Mr. Lyon: What did he say?

- A. I said there is only one mistake in it.
- Q. (By Mr. Scofield): What is it? Will you point it out, please? [1822-656]
- A. Yes. You don't know the top of the cement until six or seven days later in the pipe.
- Q. Don't know the top of the cement for six or seven days?
- A. No, because the cement was not drilled out until six or seven days later.

Mr. Lyon: You say this figure on here of 7436—

Mr. Scofield: Let me examine it.

Mr. Lyon: Just a moment. Let me take it. I am asking the witness——

Mr. Scofield: I am examining the witness on direct examination.

Mr. Lyon: The witness pointed out to something—

Mr. Scofield: You can do it on your cross-examination.

Mr. Lyon: I will complete the record right now.

Mr. Scofield: I will straighten it out myself, please.

Mr. Lyon: I will straighten it out. The witness pointed out something and I will straighten it out.

Mr. Scofield: You can take your cross-examination in due course.

Mr. Lyon: This is not cross-examination. This is keeping the record clear.

Mr. Scofield: I will clear it myself. I am examining the witness.

Mr. Lyon: I will do it. [1822-657]

Q. (By Mr. Scofield): You have put your initials on a designation on this drawing reading, "7436 ft. to top of cement in 65%-inch casing." What is there incorrect about that statement, Mr. Sweetser?

A. Because that cement was not drilled out. On January 6, 1940, it was drilled out, the cement.

Q. So that on December 31, 1939, the cement top was not at that location?

A. I don't think so.

Q. Are you sure about that?

A. Well, you go in later and drill out.

Q. Can you tell from the report just where the [1822-658] top of the cement was on December 31st?

A. No, I can't because it was drilled out later.

Q. Are sure then that that top of the cement is not correct in the drawing?

* *

- A. Or reasonably so that I didn't figure because the darned thing didn't go—you couldn't tell where the cement was on 12-31-39 because the cement was just put in the hole. You couldn't find out where the cement was until you went in the hole.
- Q. (By Mr. Scofield): Well, now, after the report was made, couldn't it have been determined where the height of the cement was at that time?
- A. Oh, yes, after you went in the hole you could. [1822-659]
- Q. Well, isn't it accurate to say that it was at that height?
- A. Well, it says down here on 1-6-40, "Drilled out cement 7436-7488. Ran Hayward, tester." I don't see where it makes a hell of a lot of difference anyway.
 - Q. Well, let's proceed.
- A. I just questioned that because I just happened to look at it here and I know there is no way of telling where the damn cement was without going in and feeling for it.
- Q. Was the cement height determined at a later time?
- A. Well, I don't know whether the correct report was made out on it or not. They say drilled out cement here from 7436. Then you have cement above that that is flushed up, you know, and washed out.

- Q. Now, from the report, tell me what the condition of the well was on January 6, 1940?
 - A. Well, it was drilled out to 7488.
 - Q. What do you mean by drilled out?
- A. Drilled the cement, cleaned it out, setting a packer.
 - Q. What do you mean by setting a packer?
 - A. Making a water shutoff there.
- Q. Will you briefly describe how that [1822-660] is done?
- A. You get a long string of pipe with the valve closed and get it down to where you want to set it and which leaves pipe empty inside and you open the valve and you set your packer and then open the valve and whatever is coming in below will come into your pipe.
 - Q. What does the packer do?
- A. It seals and angles off from the part of the casing, from the lower part of the casing where it is set.
- Q. These questions may seem rather elemental to you, but this is going to be sent to a tribunal that knows very little or maybe they don't know very much about the drilling of oil wells. So I would like, if you will, just describe these operations as you go along. Now, proceed. After you had set this packer as you indicated what was done next?
- A. The valve was opened after the packer was set and then that allows what is below the packer to flow in, into a tube or drill pipe, I don't know what was used here, but I think a drill pipe was used.

- Q. What is the purpose of gathering that fluid?
- A. To see if you have got a water shutoff.
- Q. What was done next on January 6th to describe the condition of this well?
- A. Well, they had, according to this, there was 82½ stands fluid consisting of 15 stands thin mud increasingly [1822-661] heavy showing oil; 39 stands light gas-out fluid; 14 stands muddy oil.
 - Q. What do you mean by stands?
- A. Well, that is what was designated as the length that is pulled. And in them days there was two doubles, probably 80 or 85 feet long.

Q. Of what?

- A. Of drill pipe. This indicated it was drill pipe. The last is 23½ stands of watery mud showing oil and gas. 61 grains salt per U. S. gallon at double off bottom. That would be the lowest entry—the last entry of the water into the pipe. Then cleaned out sand bridge, 7474-7488.
 - Q. What do you mean by that?
- A. Well, that was an entry of sand that came in with the fluid and sanded it up.
 - Q. Came into this Hayward tester?
 - A. No; came into the hole, into the casing.
- Q. Now, that was the condition of the well, was it, on January 6, 1940? A. Yes.
- Q. I show you, or, I should like to have the reporter mark the drawing which I hand the witness as Applicant's Exhibit 26 for identification.

Mr. Lyon: Objected to as incompetent, [1822-662]

(Deposition of Henry Earl Sweetser.) irrelevant and immaterial and not properly proven and identified and no foundation laid.

Q. (By Mr. Scofield): I show you this drawing, Mr. Sweetser, and ask you whether or not that drawing—

Mr. Lyon: What drawing is this?

Mr. Scofield: This is Exhibit 26 that shows the condition of the well on January 6, 1940.

- A. Is this taken off of this here? (Indicating.)
- Q. (By Mr. Scofield): I'm asking whether or not it shows the condition of the well on January 6, 1940?

Mr. Lyon: Further objected to as not the best evidence. The best evidence that we have here is, apparently, the report itself. And also as leading and suggestive.

A. That down here at the bottom here should say watery mud showing on oil and gas. (Indicating.) It just shows watery mud on here.

Q. (By Mr. Scofield): Would you add, "Oil and gas" on this designation with your pencil?

A. I would to make it correct.

Q. Well, you do it.

A. (Indicating.) [1822-663]

Q. Otherwise do you find that the drawing, Exhibit 26, shows the condition of the Community Number 1 on January 6, 1940?

Mr. Lyon: Objected to as calling for a conclusion of the witness and not the best evidence.

A. Yes: that shows the repetition of this right here. (Indicating.)

- Q. (By Mr. Scofield): And you are referring to the report of the Division of Oil and Gas?
 - A. 17B.
- Q. Now, Mr. Sweetser, would you please state what the condition of the well was on January 12, 1940, and what changes were made since the date January 6, 1940?
 - A. Well, on the 8th they set a retainer.
 - Q. What is the purpose of setting a retainer?
- A. Well, for your cement to go through. You pump the cement down through this retainer.
 - Q. Are you going to cement the well now?
- A. So that the cement wouldn't come back up into the easing.
- Q. Had this well already been cemented on one occasion at this time?
- A. Well, it was being cemented when you pump the cement down and when it is first set. To me, this [1822-664] thing here don't prove whether it was wet or whether it was dry, so far as that is concerned.
- Q. What do you mean; what did you mean by wet and dry?
- A. Well, an ordinary wet well is a salt water well, not a fresh water well, and there is no indication of salt water in this well, which happens a lot of times that way.
- Q. And when you say this here in that last sentence, what do you mean?
- A. Well, as indicated on 1-6-1940 of that rise, abnormal rise, you might say, of fluid in the hole.

- Q. Well, after—
- A. In other words, most of the time if you had an abnormal rise like that you would have that test on the bottom and you had salt water and which runs around 1700 grains and this here only says 61 grains.
- Q. And then you indicated that you set a cement retainer? A. Yes, 7462.
 - Q. And then what did you do?
 - A. Well, they tried to break circulation.
- Q. What do you mean by that, breaking circulation?
- A. To see if the formation will take [1822-665] anything. Under 3200 pounds it wouldn't take it so they drilled up the cement retainer.
- Q. By drilling up the cement retainer, what do you mean; do you drill out? A. Yes.
 - Q. You drill through it?
 - A. Drill it entirely up.
- Q. So the cement retainer remains no longer in the well?

 A. No.
 - Q. Then what do you do?
- A. Then ran two and a half tubing with a packer and set two and a half tubing in 6975 with packer on bottom and swabbed to 3800.
- Q. What did you run this two and a half inch tubing with the packer for; what was the purpose of it?

 A. To test the well.
 - Q. You were making a second test on the well?
 - A. Yes.
 - Q. And what do you mean by swabbing?

- A. Well, you pull a fluid in the hole out with the swabber to lower the level of the fluid in the hole.
 - Q. What is a swabber?
- A. Well, it consists of a mandrel with rubbers on it to pull the fluid out and pull it with a sand line. [1822-666]. That lowers the fluid and tests the well that way.
- Q. What were you testing the well for at that time?
- A. To see whether we could prove that any water was coming into it.
 - Q. Then proceed: what did you do next?
- A. Well, swabbed it to 3800 and fluid rose 500 feet in 45 minutes showing oil and gas. Swabbed fluid to 4300, and I don't understand this, it ain't quite completed, fluid level 3600. There is no telling there how long it was set.
 - Q. Why would you swab at two different levels?
- A. Well, the deeper you swab it, why, the faster entry you can get.
 - Q. Faster entry of what?
- A. Of the fluid below, whether oil, gas, water or whatever it was.
 - Q. On those tests what was determined?
- A. There wasn't anything determined. Whether wet or dry, the only thing that we did there, we didn't take a chance on it and we recemented it.
- Q. What does this mean: "salt increased to 434 grains"?
 - A. Well, that there was some salt water.
 - Q. What would that indicate? [1822-667]

- A. Well, it wouldn't indicate anything.
- Q. Would it indicate that you had a water shutoff or not? A. No, it wouldn't.

Mr. Lyon: Objected to as already asked and answered.

- Q. (By Mr. Scofield): What would that indicate, the increase in the salt water content in the well?
- A. Well, it would indicate—sometimes you might not have the water shutoff and other times you have a lot of oil bearing as soon as that produces salt water for a little while and then they can clean right after that.
- Q. What did you do in this instance, on this particular well?

 A. We recemented it.
 - Q. You recemented it? A. Yes.
 - Q. And where is that shown; on what date?
- A. Well, on the 12th we started there, "ran cement retainer on tubing and set same at 7464. Pumped away 75 sacks of cement. 1200 pounds increasing to 2500."
- Q. What does that 1200 pounds increasing to 2500 pounds mean?
- A. That you have got a cement [1822-668] buildup.
 - Q. It has got a cement buildup?
- A. Yes. In other words, if your pressure would go down your cement would be running away on you.
- Q. Does it mean that the cement was going into the formation or going into the well?
 - A. You couldn't tell where it is going, whether

(Deposition of Henry Earl Sweetser.) going up, down or sideways or what. If anybody can tell you where that cement goes, they are pretty good.

- Q. At least, you were getting into the hole somewhere?
 - A. We were getting it there somewhere.

Mr. Lyon: Now, wait a minute.

Q. (By Mr. Scofield): Does it have any indication as to whether or not you were cementing away some of this part that hadn't been cemented originally?

Mr. Lyon: That is objected to as leading and suggestive and contrary to the statement of the witness.

- Q. (By Mr. Scofield): Go ahead and answer it.
- A. It is hard to tell you where the cement was going. I wouldn't tell you because I don't know.
- Q. Well, what actually did occur then; what did you do after you had pumped in this extra cement?
 - A. Cleared the cement retainer. [1822-669]
- Q. What do you mean by clearing the cement retainer?

 A. Pump it below the top of it.
 - Q. Pump it below? A. Yes.
- Q. Now, you will have to explain that; pump it below what?

A. You have your cement retainer in there and you have easing in the bottom and easing below and if you want to do any more cement work you have got to clear that cement retainer and that easing that goes immediately below it if you want to pump any more cement away.

- Q. And how do you do that?
- A. You have got a ball, and set in your cement retainer that keeps the cement from entering back up into the casing.
- Q. How do you do that, the clearing of the cement retainer, how is it done?
- A. Just pumping more fluid than what you have got pressured, and want to stop it, say, in this instance we were stopping it above there, a cement retainer, pumping up more fluid to pump it below it.
 - Q. Did you do that? A. Yes, it was done.
- Q. Did that fluid have cement in it or [1822-670] not?

 A. Which?
 - Q. That you were pumping in?
 - A. No, it was mud.
- Q. So you were trying to pump out the cement that was in the tubing?

Mr. Lyon: That is objected to as leading. Why don't you let the witness testify.

- Q. (By Mr. Scofield): What were you doing?
- A. Pumping the cement out to clear the retainer so this retainer would not be fouled up to do another cement job.
 - Q. Where was the cement?
 - Λ. After we pumped it in?
- Q. No, before you pumped it out where was the cement?
- A. Theoretically, I don't know, because all it says here—this happened too many years ago for me to remember the details on it, but there was 75

(Deposition of Henry Earl Sweetser.) sacks of high temperature cement pumped in from 1,200 increasing to 2,500.

Q. Right there you say pump in——

Mr. Lyon: Let the witness answer the question.

Q. (By Mr. Scofield): What was it pumped into? [1822-671]

Mr. Lyon: Let him finish his answer. Have you finished your answer?

Q. (By Mr. Scofield): Go ahead.

A. It was pumped into this tubing down to the bottom and then a squeeze was put on it and you squeeze it out and you hope it is going to shut off water but there is no way telling whether it is going to do it or not if you have got an open hole below it.

And then they cleared that retainer, that cement was pumped entirely below there and then pumped in 25 sacks of Victor high temperature cement and pumped away 6 cubic feet and evidently the packer gave way because the pressure dropped from 3,150 to 1,500 pounds and circulated that to the surface. That was between the casing and the tubing, not around the casing.

Q. You mean that the circulation came back to the surface?

A. Yes, between the casing and the tubing.

Q. And that indicates to you that the packer may have given way?

A. That the packer we were using to squeeze with give way.

Q. What do you mean by this word "squeeze";

(Deposition of Henry Earl Sweetser.) explain that so that we will all [1822-672] understand it?

A. Well, when you get cement down you pump it down with just an ordinary circulating pressure, probably 500 pounds, and after you get it in place it takes a normal pressure to pump it back into formation. Out in Rosecrans here, below there where they are doing that work now, it takes 4,500 pounds to put it away.

So that was the end of that and drilled up and went back and drilled up this cement retainer and cleaned out the 7,488.

Mr. Scofield: I request that the reporter mark the drawing which I am about to submit to the witness as Applicant's Exhibit 27 for indentification.

Q. (By Mr. Scofield): Before you look at this drawing, Mr. Sweetser, will you turn over to page 17C and indicate what entry is opposite January 14, 1940; what was done on the well at that time?

A. "Drilled up retainer and cement and cleaned out to 7,488."

Q. Now, will you look at the drawing, Exhibit 27?

A. You better look at it first.

Mr. Lyon: I will do that.

Q. (By Mr. Scofield): Will you compare the drawing with the report? [1822-673]

A. Is this of the 12th?

Q. Yes. Indicate the condition of the well on January 12, 1940, and state whether the drawing shows the condition of the well on that date?

Mr. Lyon: Objected to as calling for secondary evidence, not the best evidence; calling for the conclusion of this witness; incompetent, irrelevant and immaterial and leading and suggestive.

- A. Well, as far as I know, it looks like it. That is a description of this here. (Indicating.)
- Q. (By Mr. Scofield): Have you compared the report with the drawing, and can you state whether the drawing shows a condition of the well according to the report or whether it does not?
 - A. That looks all right.

Mr. Lyon: The same objection and leading and suggestive.

- Q. (By Mr. Scofield): Now, I would like to have you state from the report what the condition of the well was on January 15, 1940, that is, on Exhibit 17C?
- A. Well, on the 14th they drilled up the retainer and cement and cleaned out to 7.488.
 - Q. What do you mean by that? [1822-674]
 - A. On the 14th?
 - Q. Yes?
- A. Well, that retainer that we had in the hole had to be drilled up before they could make a test and the cement cleaned out down five feet under the shoe.
- Q. So you drilled out part of the cement that you had in the well?
 - A. Well, yes, in the casing.
 - Q. In the casing?

- A. Yes. And at the bottom of the casing for five feet.
 - Q. All right? A. To 7,488.
 - Q. What did you do next?
- A. Ran a Hayward tester on three-inch drill pipe and set packer at 7,432.
 - Q. Now, what was the purpose of doing that?
 - A. To determine water shutoff.
 - Q. To determine water shutoff again?
 - A. Yes.
 - Q. Then what did you do?
- A. Open the valve and set the packer at 7,432 and opened the valve.
 - Q. Where was this valve located?
 - A. In the Hayward tester. [1822-675]
- Q. All right, and what was indicated when the valve was opened?
- A. Well, bad medium blow for 50 minutes and intermittent medium decreasing to weak for one hour and ten minutes.
 - Q. What does that mean to you, if anything?
- A. Well, you had either gas or oil or water or had a disturbance down there that was moving.
 - Q. Then what next did you do?
- A. And the gas appeared decreasing to weak for an hour and ten minutes. Gas appeared at surface in 46 minutes.
 - Q. What does that indicate?
 - A. Had a fair amount of gas.
 - Q. Then what happened next?
 - A. Found 800 feet of medium gas out fluid

(Deposition of Henry Earl Sweetser.) showing increasing amount of oil. Shutoff approved by State Division of Oil and Gas.

- Q. What does that mean?
- A. Well, you got to have their approval before you can go ahead with an oil well.
- Q. Is this the first time that there appears that the Oil and Gas Division had given any approval of the well?
- A. I thought they were on the other job, but I don't [1822-676] see nothing in here. I couldn't say yes or no to that.
- Q. As far as this report is concerned, is this the first indication of approval by the Oil and Gas Division?

 A. Yes.
 - Q. All right, proceed, then what happened?
 - A. Well-
 - Q. Then what did you do next?
- A. Drilled out cement and tailpiece-bottom of cement at 7,505.
 - Q. What was the purpose of that?
 - A. That tailpiece?
 - Q. Trying out that cement and tailpiece?
- A. We had to clean that out so we could get to the bottom of the hole.
 - Q. For what purpose?
- A. To set casing. You drill that out and then clean out the bottom and scrape walls to 75% inches.
- Q. What were you doing now by these operations; what were you preparing the well for, if anything?

 A. To bring on production.
 - Q. To bring it on production? A. Yes.

- Q. All right, then, what else did you [1822-677] do?
- A. Then landed 233 feet of 4¾-inch 16 pound seamless grade C Range 3 casing at 7,688.
 - Q. What does landing a casing mean?
- A. Well, the top of the liner you have a hanger which has slips in it and when you get in the hole you turn it and engage these slips and that sets it and hangs the liner in the bottom of your water strain. In other words, it suspends it, you know, if you turn it loose in there you are liable to have a dog-leg in it.
 - Q. What do you mean by a "dog-leg"?
- A. Some of these holes are drilled kind of crooked or have holes in them and you leave your pipe loose in them and the pipe will kick out wherever the least resistance is.

Mr. Scofield: I request that the report mark the drawing, which I am handing the witness, as Applicant's Exhibit 28 for identification.

- Q. (By Mr. Scofield): Do you have 28 before you, Mr. Sweetser? A. Yes.
- Q. Will you compare the showing on the drawing, Exhibit 28, and state whether or not that indicates or shows the condition of Community Number 1 oil well on January 15, 1940?
- A. This is with the packer sitting in the hole? [1822-678]
 - Q. Yes.
 - A. As far as the figures and everything, they

(Deposition of Henry Earl Sweetser.) are all correct, as far as this report here. (Indicating.)

- Q. That is, you have compared it?
- A. All I have got to go by is this report here. (Indicating.)
- Q. That is what I am asking you to do. I'm asking you to compare the drawing with the report, the Exhibit 17, if you have that before you, and I believe that the report of the condition of this 28 appears on what page?

 A. 17C.
 - Q. On 17C? A. Yes.

Mr. Lyon: Let the record show that it is calling for secondary evidence and incompetent, irrelevant and immaterial.

- Q. (By Mr. Scofield): Now, what was done after this date?
- A. On the 16th it was drilled out cement and tailpiece-bottom of cement at 7,505. Cleaned out to bottom.

Mr. Lyon: That has already been asked and answered once.

- Q. (By Mr. Scofield): You have indicated that was done to prepare the well for production, have you not? [1822-679] A. That is right.
 - Q. All right, now, let's go down to January 18th.
 - A. Well, put the tubing in the hole at 7,688 ft.
- Q. What was the purpose of putting the tubing in the hole?

 A. To acidize it.
 - Q. Why were you intending to acidize this well? Mr. Lyon: Objected to as entirely immaterial.

Q. (By Mr. Scofield): Go ahead.

A. Acidize a well is to get your lime deposits down there and the acid eats them up. A lot of people figure that they do the wells good by eating the mud out of the formation with this acid immediately behind your easing.

- Q. Was it done on this well? A. Yes.
- Q. What was done after that?
- A. Well, swabbed the 19th.
- Q. What did you do that for?
- A. To bring the well in, flowing.
- Q. To do what?
- A. To bring the well in. [1822-680]
- Q. That is, to produce the well?
- A. That is right. On the 21st, turned to tanks.
- Q. And what does that mean "turned to tanks"?
- A. Producing oil. You want to save that oil, to sell it.
- Q. You mean that you were taking the oil from the well to the tanks?

 A. Yes.
- Q. I show you a drawing which I have requested the reporter to mark Applicant's Exhibit 29 for identification, and will ask you to compare it with the report which you have before you and state whether or not the drawing shows a condition of Community Number 1 on January 18, 1940?

Mr. Lyon: Objected to as calling for secondary evidence. The report itself is the best evidence. The witness says he has no independent recollection of these factors and is leading and suggestive; incompetent, irrelevant and immaterial.

- Λ . This is on the 18th?
- Q. (By Mr. Scofield): Yes, on the 18th of January.
 - A. As far as I know, it looks like it.
- Q. Have you made the comparison, Mr. Sweetser? A. Yes, with 1-18-1940. [1822-681]
- Q. Do you find the drawing to show what the condition of the well was on January 18, 1940?
- A. Yes. There is only one thing that I don't find on any of those pictures.
 - Q. What is that?
- A. And that is those scratchers that was installed, why doesn't it show?
- Q. That is what I was going to ask you about. Where were the scratchers installed?
 - A. At the bottom of the pipe.
- Q. Now, is there any indication on this report of any scratchers?
- A. Not on this, they wouldn't be. (Indicating.) I wouldn't think because you don't turn those centralizers and scratchers into DOD. I never have.
- Q. Was that an unusual tool to use on this particular easing?
- A. I would say it is unusual. The first time I ever ran them and first time I ever saw them.
- Q. Do you think it was unusual then to use them on this particular well?
- A. Well, I would say to that question that there isn't anything unusual in the oil business.
- Q. Well, is there anything in this report that indicates that scratchers were used on [1822-682]

(Deposition of Henry Earl Sweetser.)
the well?

A. No, they wouldn't be,

Mr. Lyon: That is objected to on the ground that the report speaks for itself.

- A. They wouldn't be, I don't think, because, you see, these reports that were made out and turned in to the Mining Bureau, were taken off of my records. I had to make them up to be turned in and I wouldn't put, I don't do it yet, centralizers or scratchers on there.
 - Q. (By Mr. Scofield): Why don't you?
 - A. Well, they don't require it.
 - Q. Is that any reason for leaving them off?

Mr. Lyon: Just a moment. I object to the matter of the cross-examination of your own witness. What are you trying to do, impeach him again?

Mr. Scofield: Answer the question.

Mr. Lyon: The witness has answered the question that they don't require it and he doesn't do it.

- Q. (By Mr. Scofield): Answer the question, please?
- A. They always do it short way. We don't put down any more than we have to.
- Q. Did you put a report of these scratchers down on the original log of this well?
- A. I don't know. I don't remember. [1822-683] couldn't answer that question truthfully.
 - Q. Well, would you, normally?
 - A. I do now.
 - Q. You do now?
- A. The oil business is a whole lot different today than it was then, I will tell you, because there is

more to drilling an oil well. They used to just drill an oil well in the ground and if we got an oil well we was lucky to get oil wells them days, because you just drilled them and that is all there was to it.

- Q. Have you talked to the parties in [1822-684] this controversy with regard to this Community Number 1 well on any occasion before giving your testimony today; and you can refer first, if you want to, to Mr. Hall; have you talked to him on any occasion before this?
 - A. Yes, I talked to Mr. Hall.
 - Q. When was that?
- Λ . Several months ago. I couldn't recall the date.
 - Q. Where did you talk to him?
 - A. Castaic.
 - Q. What was the substance of the conversation?
- A. Oh, they wanted an affidavit and they wanted to know what kind of scratchers we was running and I think I told him at the time there was a scratcher hanging up on the post down in the yard, down there at Long Beach, that might have looked like them, but I couldn't tell you whether it was or not.
 - Q. Who was with Mr. Hall; anybody?
 - A. Oscar.
 - Q. Oscar Gay? A. Oscar Gay.
- Q. Did they inquire from you anything else concerning this well besides what scratchers were used? Λ. No, I don't think so.
 - Q. Ask you anything about the crew?

- A. They asked me the crew's names. They got the crew's names from me.
- Q. You gave them the crew's names, did you, at that time? A. Partially.
 - Q. Did you give them-
- A. I couldn't give them all because I wouldn't know.
 - Q. You gave them what you remembered?
- A. What I could remember. Two or three men, I think was all.
 - Q. Did you give them an affidavit?
 - A. No, I don't give an affidavit to nobody.
- Q. Now, when next did you talk to [1822-685] Mr. Hall?
- A. I don't recall because, probably, he could answer that question better.
- Q. Did you talk to him on any other occasion than when you talked to him in Castaic?
- A. I don't know. Did I talk to you on the telephone after that? Outside of the time he was down to the house.
 - Q. Down to your house?
 - Λ . Yes, a few nights ago.
 - Q. When was that or where was that?
 - A. Down in Long Beach.
- Q. What happened on that occasion; what was the conversation?
- A. Well, he wanted me to come up and give some testimony here and I told him I would and I didn't come so I had trouble.

- Q. How did you advise us that you couldn't get here? A. By Bruce.
 - Q. Bruce Barkis? A. Yes.
- Q. On what occasions have you talked with either Mr. Barkis or Mr. Wright concerning this Community Number 1?
- A. Well, I have talked to them a few times and I told [1822-686] them, just like I told Mr. Hall, I didn't want to be involved in a lawsuit. I think you can ask them that and they will tell you.
- Q. What I am doing is getting your version of it, just as to what you recall, concerning these conversations, both with Mr. Hall and with Mr. Barkis and Mr. Wright.
- A. They asked me what I could remember and I couldn't remember much of anything as far as Mr. Hall is concerned because, you know, you have got to have the things that happened that far ago; you are pretty good if you can just pick out of the air and remember things.
- Q. What did you tell Mr. Hall and Gay about this scratcher that was hanging on the fence down here in Long Beach?
- A. I told them I thought it might look like one, but I don't know that. It could be one of them or not because I couldn't tell you what that scratcher looked like and tell you the truth about it.
 - Q. Whose yard did you direct them to?
- A. Harley-Kelley's yard, which had no bearing on the Thomas Kelly.
 - Q. They are a different outfit?

- A. Different outfit; no relation.
- Q. Do you have any interest in this [1822-687] controversy at all?

 A. I have not.
 - Q. Have you been paid anything by either side?
- A. No, sir. In fact, by golly, it is doggone bad thing for me. I have got a well now right down at Castaic that is waiting on me.
- Q. Now, do you recall how it happens that scratchers were selected to be used on this pipe; did you have anything to do with that?
- A. Well, I think, they had called on us and I think Mr. Graser called on us. And with Mr. Lawrence Kelly they sat down there. I don't know who was the instigator of it.
 - Q. Did you favor using them? A. No.
- Q. Well, who actually passed upon the equipment to be used?
- A. I think L. C. Kelly was the one. I think Bruce Barkis or Mr. Wright there talked him into running them. I don't know which one of them.

Mr. Scofield: That is all the direct examination.

Cross-Examination

By Mr. Lyon:

- Q. Mr. Sweetser, state whether or not it is true that the scratchers were mounted on a casing according [1822-688] to the specific direction of Mr. Kenneth Wright?
- A. They were because I had nothing to do with it.

- Q. Mr. Wright was there and directed how they be mounted, wasn't he?
- A. Him and Mr. Barkis, both of them were there.
- Q. Do you have any independent recollection of your own as to how they were mounted on the pipe?
 - A. No, I do not.
- Q. Do you have any independent recollection of the joint of the casing upon which the scratchers were mounted? Λ . No.
- Q. Do you know whether it was near the bottom of the wall or—
 - A. I know it was near the bottom.
- Q. Do you know whether it was above the shoe or how far?

 A. Above the shoe of the casing?
 - Q. Yes.
- A. Well, I think they would be, some part of them would be on the joint.
- Q. And do you know how far up they were rammed?
- A. How far they came up the hole, I couldn't tell you that, but there were quite a number of them put [1822-689] on.
 - Q. You have no recollection of how many?
- A. Probably would be somewhere around 20, 25. Now, as far as I am concerned, that is just as far as I can recollect. I don't know how many there were.
- Q. I am just straining your recollection, that is all. Let me ask you one simple question—
- A. You fellows know how many there were. I don't know.

Q. Let me see if we can't ask you just one simple question. Is there anything in this Oil and Gas Division report which shows any more positive evidence of water shutoff on January 6, 1940, or on January 15, 1940?

Mr. Scofield: Do you understand the question?

- A. When was the first one?
- Q. (By Mr. Lyon): January 6th and January 15th was the second test?
- A. Well, I would say—I would answer it this way: Anytime that I am in doubt they get recemented.
 - Q. Well, now—— A. In other words——

Mr. Scofield: Let him finish his answer.

- Q. (By Mr. Lyon): Go ahead. [1822-690]
- A. In other words, I cemented wells up that only showed, you know, 400 or 500 feet rise, but that wasn't no proof that they were wet.
- Q. And there is no proof in this record that on January 6, 1940, that this is a wet well?
- A. No, there is no proof of it. I have no proof of it, and another thing, I have had wells, by golly, that I have drilled and showed they were dry and put them on and they were wet.

Mr. Scofield: Go ahead and finish your answer.

- A. The Mine Bureau comes out and tells you you have got to shut off. I have got one on my hands I just completed, I had an absolutely perfect shut off and I still got a well cutting 50 per cent.
- Q. (By Mr. Lyon): As far as the Mining Bureau was concerned you got approval of shut off?

- A. I got approval and as far as I was concerned it looked all right.
 - Q. And still it was a wet well?
- A. And still cutting 50 per cent. I would have gambled on that well being dry.
- Q. There is nothing in this Mining Bureau report, this Exhibit in front of you which shows really whether there was a water shutoff at any time, is there? [1822-691]
- A. No. I will tell you, these oil wells are like a woman, they are fickle.

Mr. Lyon: That is all.

Redirect Examination

By Mr. Scofield:

- Q. In case of this Community Number 1, after your first cementing job, you were in doubt about it?
 - A. I am always in doubt where we get any rise.
 - Q. And you got a rise here, did you?
 - A. Yes, we had a rise, the records show a rise.

Mr. Schofield: That is all.

Recross-Examination

By Mr. Lyon:

- Q. And after you recemented it you had a rise, too, didn't you?

 A. Sure.
- Q. So you were in doubt about a water shutoff then, weren't you?

 A. Yes.

Mr. Lyon: That is all.

A. Rise don't prove nothing. [1822-692]

JESSE E. HALL, SR.

(Recalled)

Recross-Examination

By Mr. L. E. Lyon: [1934]

O (By Mr L F Lyon)

Q. (By Mr. L. E. Lyon): I would like to have you review this correspondence, Exhibits 194 to 205 for identification, together with those three communications which are referred to and which are in evidence as Exhibits CU-1, CU-2, and CU-3, and advise me, Mr. Hall, if that constitutes the entire correspondence had between you and Mr. Scofield or your sons and Mr. Scofield between June and November of 1945 with [1941] reference to the filing of a second application which became application Serial No. 627,013.

The Witness: What is the question?

(Question read by the reporter.)

A. Some of these letters I have never seen before until this day. I do not know the contents. They are rather lengthy. I don't want to change the bearing in no means by testifying that I knew of their dates or anything about them. I only see here one letter that was sent to me, and possibly two, in this bunch. I recall something of discussing the matter of foreign countries, whether to file them, and that letter received is the only one, except the one that I written myself, dated July 23, 1945, to Mr. Scofield and it is signed by me.

(Testimony of Jesse E. Hall, Sr.)

As to the chain of correspondence I am not able to testify to anything of any of these things that are records. I don't know what the chain of correspondence was.

The Court: Do you know of any other correspondence than that?

The Witness: I do not, your Honor.

The Court: Insofar as you know that is the complete chain?

The Witness: Well, I didn't know of this correspondence.

The Court: Insofar as you know, is it?

The Witness: So far as I know, that would be a complete [1942] chain.

The Court: Insofar as you know is that a complete list, Mr. Scofield, of the correspondence?

Mr. Scofield: That is all of the correspondence that passed between us, your Honor.

Mr. L. E. Lyon: I will offer in evidence at this time the chain of correspondence produced pursuant to our demand.

The Court: That will be Exhibits 194, 195, 196, 197, 198, 199, 200, 201, 203, 204, and 205 for identification.

Mr. L. E. Lyon: That is correct.

The Court: Is there objection?

Mr. Scofield: No, sir. I request that the correspondence be substituted by photostatic copies and the letters be returned to me.

Mr. L. E. Lyon: I have no objection, your Honor.

(Testimony of Jesse E. Hall, Sr.)

The Court: So ordered. Received in evidence: Exhibits 194 to 205, both inclusive.

Mr. L. E. Lyon: I now have before me and I place before the witness that box of correspondence, also produced in accordance with our demand, which has reference to the 1952, January, 1952, so-called royalty demand letter, from which I have subtracted certain correspondence as typical of that contained in the box and which I will offer in evidence at [1943] time, having been produced pursuant to our demand

The first letter I am offering is that of January 30, 1952, to Havenstrite Oil Company, to which is attached the letter of January 21, 1952, written by the Havenstrite Oil Company to Mr. Thomas E. Scofield; and under which is a letter of January 17, 1952, which is a copy of the \$2.50 royalty letter, together with the registry receipt, and ask that that correspondence be received as Defendants' Exhibit next in order.

The Court: Is there objection?

Mr. Scofield: No objection, your Honor. And I would like to have it understood with respect to this correspondence that the correspondence be substituted by photostatic copies and the original correspondence returned to me.

The Court: Is there any objection to the substitution of the photostatic copies?

Mr. L. E. Lyon: None whatsoever, your Honor. The Court: So ordered, the documents received (Testimony of Jesse E. Hall, Sr.) in evidence. I assume it is stipulated that they are

genuine copies---

Mr. Scofield: They are from my files.

The Court: ——and in all respects what they purport to be.

Mr. Scofield: That is correct, your Honor.

The Clerk: Defendants' Exhibit DH in evidence.

* * *

Mr. L. E. Lyon: And the sub-ones following it.

Next in that series of correspondence I would like to offer the correspondence produced pursuant to this demand with the Sun Oil Company; and in this case I will begin by offering the letter of January 18, 1952, addressed by Mr. Scofield to the Sun Oil Company, Dallas, Texas, purchasing department, which is in all respects a copy of the \$2.50 royalty letter;

The letter of January 24, 1952, written by Robert O. Spurdle, manager of the patent division of the Sun Oil Company, of Philadelphia, Pennsylvania, to Mr. Thomas E. Scofield; and the letter written by Mr. Thomas E. Scofield of February 1, 1952, in response to that letter and addressed to Mr. Robert O. Spurdle, manager of Sun Oil Company, Philadelphia 3, Pennsylvania, and which letter I believe constitutes distinct violation of the injunction which I previously have [1945] handed to the court. It is charged not only as a violation of the injunction but as a distinct act of unfair competition.

The Court: Is it stipulated that the documents

just offered are genuine and in all respects what they purport to be?

Mr. Scofield: Stipulate to that.

The Court: Any objection to the offer? Received in evidence.

Mr. L. E. Lyon: Next in the line of correspondence is the correspondence had with the Jarecki International Supply Company, beginning with the letter of January 17, 1952, which is the copy of the \$2.50 royalty demand letter; a copy of the registry return receipt being attached thereto.

Next in that correspondence file is a letter of January 23, 1952, written by George W. Hutcheson, attorney and counselor, Kirby Building, Dallas, Texas, to Mr. Thomas E. Scofield and having reference to the letter previously identified;

And the file then contains letter of February 1, 1952, addressed to Mr. George W. Hutcheson, discussing the issues and stating opinions with reference to this case, without giving statements as to the contentions of the different [1946] parties, and which correspondence I will offer in evidence as the Defendants' Exhibit next in order. And I will agree that photostats may be substituted for the originals.

The Court: Stipulated the documents now offered are genuine and in all respects what they purport to be?

Mr. Scofield: Stipulated, your Honor, that the documents are genuine.

The Court: Is there objection to the offer?

* * *
The Clerk: Defendants' Exhibit DJ in evidence.

* * *

Mr. L. E. Lyon: The next file which I will offer in evidence is the file produced in accordance with our demand of the correspondence had with the Pure Oil Company and which file of correspondence begins with a copy of the letter of January 12, 1952, addressed by registered mail to the Pure Oil Company, Pure Oil Building, Chicago, Illinois, and which [1947] in other respects is a copy of the \$2.50 royalty demand letter, together with the return registry receipt attached to this letter: a copy of the letter of January 17, 1952, sent to the addressee, Mr. Thomas E. Scofield, 1325 Rialto Building, Kansas City, Missouri, by Mr. J. H. Harmon, Jr., assistant general purchasing manager of the Pure Oil Company at Chicago;

Followed by a letter of January 25, 1952, from Mr. Edward H. Lang, patent counsel for the Pure Oil Company, and likewise addressed to Mr. Thomas E. Scofield at the same address, and bearing Mr. Scofield's "received" stamp of January 28, 1952;

Followed with a letter addressed to Mr. Edward H. Lang of the Pure Oil Company, the Pure Oil Company Building, 35 East Wacker Street, Chicago, Illinois, dated January 30, 1952, bearing the notation: "Dear Ed" and written to that gentleman by Mr. Thomas E. Scofield, together with a letter from

the Pure Oil Company, signed by Mr. Edward H. Lang, patent counsel, of February 6, 1952, addressed to Mr. Thomas E. Scofield and bearing Mr. Scofield's "received" stamp of February 8, 1952, which file I will offer in evidence as the Defendants' Exhibit next in order and agree that photostatic copies may be substituted in place of the originals.

Mr. Scofield: No objection.

The Court: Stipulated to be genuine and in all respects——

Mr. Scofield: I will stipulate them to be my original correspondence. [1948]

The Court: Very well. Received in evidence. The Clerk: Defendants' Exhibit DK. [1949]

* * *

Mr. L. E. Lyon: The next file of correspondence which I wish to offer at this time is that with the Magnolia Petroleum Company, Magnolia Building, Dallas, Texas, beginning with a letter dated January 18, 1952, which in all respects, other than the addressee, corresponds with the \$2.50 royalty letter, and which copy has attached to it the return registry receipt from the Magnolia Petroleum Company; the letter from the Magnolia Petroleum Company, Legal Department, signed by Sidney A. Johnson, general patent counsel, for the Magnolia Petroleum Company, dated January 25, 1952, and addressed to Mr. Thomas E. Scofield and bearing his "Received" stamp of January 28, 1952, together with a copy of

a letter of January 31, 1952, addressed to Mr. Sidney A. Johnson, Magnolia Petroleum Company, Magnolia Building, Dallas 1, Texas, and sent by Mr. Thomas E. Scofield, together with a copy of the reply received from the Magnolia Petroleum Company and signed by Mr. Sidney A. Johnson, dated February 4, 1952, and bearing Mr. Scofield's "Received" stamp of February 6, 1952, which file I will offer in evidence as defendants' exhibit next in order.

Mr. Scofield: No objection.

The Court: Do you stipulate?

Mr. Scofield: I will stipulate that the correspondence is from my file.

The Court: It is received in evidence. [1950]

The Clerk: Defendants' Exhibit DL in evidence.

* * *

Q. (By Mr. L. E. Lyon): Mr. Hall, I place before you a [1951] letter, Exhibit SS, being a letter from Mr. Foote to Mr. Houghton of December 5, 1947, and call your attention to the fourth paragraph of this letter, which reads——

The Court: Is that an exhibit number?

Mr. L. E. Lyon: Yes, your Honor, Exhibit SS in evidence.

Q. (Continuing): ——which reads:

"During a recent discussion of the Multi-Flex scratcher, Mr. Hall, of Weatherford Spring Company, maintained that when the Multi-Flex scratcher was used in a well, the bristles would assume the position shown at the left of photograph

No. 1 and that when this occurred, it would be an infringement of one of his allowed claims."

And I will also place before you Exhibit K which is a photostatic copy of the No. 627,013 file wrapper and will refer you to the action of the Patent Office dated October 7, 1947, in which it is stated that Claims 1, 2, and 3 are allowed, and further states Claim 7 is allowed, and states: "Appeal must be filed in accordance with Rule 63 with respect to Claim 12, indicating a final action," and will ask you if it is one of those Claims, 1, 2, 3, and 7, which you referred to in your discussion of this matter with Mr. Foote or Mr. Vollmer, the person who actually wrote Exhibit SS and is referred to in paragraph 4 of this letter.

A. I don't recall discussion with him stating a claim, [1952] any one of the claims, infringed. There was a discussion of the spiral central—or of the Multi-Flex, that it would come under the function and under the claims as well as I remember. I don't know who discussed it, but that that would come under them. I don't know as there was ever any point made about an infringement, because I never was much concerned about the [1953] Multi-Flex.

And I would believe and I would say that any one of three claims that it would come under. My opinion is that it comes under any one of the three claims.

Q. Any one of which claims, No. 1, 2, or 3?

A. Any one of the three claims that now stand allowed. I haven't examined these claims,

- Q. That is, I am talking about the claims which were in the Patent Office as of December 5, 1947, and which I referred to in the 627,013 application as having been indicated as claims 1, 2, 3, and 7 were allowed; and I asked you which one of those claims you referred to in this conversation had with Mr. Vollmer, referred to in Mr. Foote's letter that the Multiflex would be an infringement of one of the allowed claims?
- A. I don't have any recollection of discussing these claims that you are talking about here. I have recollection of discussing the three claims that now stand allowed.
- Q. Now, let us go back to December 5, 1947, because the claims that you are talking about and which are now 23, 24, and 31 of the 55,619 application were not even in the Patent Office on December 5, 1947, and your statement is that you have no recollection but you can't tell me now which one of the claims that you pointed out that you believed were infringed, to Mr. Vollmer at that time.
- A. No. If I discussed with him at that time, I can't [1954] point out which one, other than the broad art in the situation.
- Q. Did you have a copy of the supposedly allowed claims at the time that you were discussing this matter with Mr. Vollmer or Mr. Foote prior to December 5 of 1947?
 - A. I don't believe so. [1955]

ROY G. BOWERSOCK

ealled as a witness by the plaintiff and plaintiffinterveners, being first duly sworn, was examined and testified as follows:

The Clerk: Will you state your name, please? The Witness: Roy G. Bowersock.

Direct Examination

By Mr. Scofield:

- Q. Where do you reside, Mr. Bowersock?
- A. At Ft. Worth, Texas. [1996]
- Q. Briefly give your educational qualifications.
- A. I am a graduate in accounting from Ohio State University, Certified Public Accountant, and have had 23 years of industrial and public accounting experience.
- Q. Give your employment after your graduation from Ohio State up to the present.
- A. 1930 to 1931—1930 to 1933, three years, with a public accounting firm known as the Konopak, Hurst & Dalton in Toledo, Ohio. Then I served one years as an examiner for the Ohio State Personal Property Tax Division: three years in industrial accounting as comptroller of The Berdan Company of Toledo, Ohio; and from 1937 to January 26, 1953, I was an accountant with Arthur Young & Company, serving 13 years of that time in Toledo, Ohio, and three years in Tulsa, out of the Tulsa, Oklahoma, office. Since January 26th I have been employed by

Mr. Jesse E. Hall, Sr., of Weatherford, Texas as accountant.

- Q. Have you had occasion to work on the books of either the Weatherford Oil Tool Company or the Weatherford Spring Company?
- A. Yes. While I was with Arthur Young and Company I was in the capacity of a supervising accountant and supervised the audit of the Weatherford Oil Tool Company. I also had a great deal to do with an income tax examination of Mr. Jesse E. Hall, Sr., for the years 1947 and 1948, and as [1997] a consequence have become familiar with his records, in addition to what familiarity I attained through the audit of Weatherford Oil Tool Company, it having succeeded to his business.
- Q. Where was this audit of the Weatherford Oil Tool Company made?
- A. Principally at Weatherford, Texas; partially at Houston, Texas.
- Q. Did you also make an audit of the Weatherford Spring Company books?
- A. Not a complete audit, no; only insofar as it was necessary to ascertain figures leading into the Weatherford Oil Tool Company and also the other companies that took over part of his business, such as Weatherford Manufacturing Company, and Parker Industrial Products Company. However, as I said, in connection with income tax examinations for Mr. Hall, why, I have gone into his records more extensively.
 - Q. In the audit of the Weatherford Oil Tool

Company did you have occasion to examine the sales records of that company?

A. Yes, sir.

- Q. What do those sales records constitute?
- A. The sales are—well, I will first start off and say that, in addition to the copies of the invoices which go to customers, the Weatherford Oil Tool Company maintains two [1998] files of invoices; one file is by customer's name and the other file is a strictly numerical file of invoices.

Now, in the case of Weatherford Spring Company's books, I will say that there was yet another set of invoices which was filed as they were paid and used as part of the paid accounting records. [1999]

- Q. (By Mr. Scofield): Did the Weatherford Oil Tool Company, besides having invoices showing the sales of their products, have journals and ledgers?
- A. Oh, yes, surely. In the case of the Weatherford Oil Tool Company, the sales were entered in a sales journal and from there are transcribed, in totals for the month as a rule, or in some cases in detail with respect to the individual accounts, transferred to the general ledger and to the accounts receivable ledger.
- Q. Did you find in the records of the Weatherford Spring Company invoices indicating sales?
 - A. Yes, sir.
- Q. Did you find in the records of the Weatherford Spring Company journals and ledgers?
 - A. Yes, sir.
- Q. Now, do the records, that is, the ledgers and the journals, indicate—I am speaking now of the

Weatherford Spring Company—the ultimate customer to whom the sales are made?

- A. In some cases they do. You mean the ultimate user?
 - Q. Yes, the ultimate user.
- A. They indicate the customer—in some cases they do and in some cases they don't. There are sales made direct to the ultimate user and, in addition to that, there are sales that are run through supply stores and in those cases [2000] the general records only reflect the supply store name and do not show the ultimate user.
- Q. Now, with regard to the ledgers and sales journals of Weatherford Oil Tool Company, do those books indicate the ultimate user or the customer to whom the sale was made in every case?
- A. No. They do not. They do not. As a general rule, the only thing reflected on the general books is the supply store through which the merchandise is billed. In other words, if a sale is made to Gulf Oil Company, let us say, it might be billed through National Supply Company or Continental Supply Company or some other supply store, and that is the only name that will appear on the general records of the company, and Gulf Oil's name would not so appear. It would be shown, however, on the invoices.
- Q. Were you requested by me to prepare a schedule of sales over a given period of time, of a selected number of these companies?
 - A. That is right. I was.

- Q. Did you prepare such schedules?
- A. Yes, I prepared it. And let us put it this way, they were prepared under my supervision.
- Q. Now, limit your answer to the Union Producing Company, and I would like to have you explain how the schedule of the Union Producing Company was prepared, the schedule of [2001] sales of scratchers and centralizers.
- A. Because of the fact that there might be sales through a supply store in addition to the ones that were directly billed, I caused an analysis to be made of the chronological file of invoices; in other words, rather than taking the invoices that are filed away by names of customers, which would only reflect those included in the supply-store names and that sort of thing, we took the files of the chronologically arranged copies and we went through those, analyzing, looking at each one of those and picking out the sales that were made to that particular company, whether or not it was a billing direct to that company or a billing to some supply company with the name indicated on the invoice.

Now, in the case of Union Producing Company, it was a company that was billed direct down through the history of the Weatherford Spring Company, and in Weatherford Oil Tool's case it was billed through supply stores.

Now, we listed in detail those invoices and then we summarized the totals for the month, and those are the schedules that you are referring to. Then we proceeded to make a chart from it.

- Q. Now, what did you mean in your answer preceding by the term "billed direct"?
- A. In other words, in the case of Union Producing Company, the sales during the period which you requested [2002] here were billed direct to Union Producing Company and did not come through any supply store during the period prior to December 15, 1948. After that date, it was billed differently by Weatherford Oil Tool Company.
- Q. In the preparation of this schedule of sales as to the Union Producing Company, you have indicated that you used only invoices. Why did you do that?
- A. Well, because that is the only way we had of really knowing who the ultimate user was.
- Q. Did you have the journals and ledgers available? A. Yes.
- Q. But you used the invoices in the preparation of this schedule?
- A. Well, I did, but I test-checked those journals back to the direct billings to any of these companies.

The Clerk: Mr. Scofield has handed to me, your Honor, copies of Exhibits 176, 176-A, 176-B, and 176-C, for your use.

The Court: Is there any objection to the court's making use of these exhibits?

Mr. L. E. Lyon: None, your Honor.

Q. (By Mr. Scofield): You have before you the schedule marked for identification Exhibit 176?

A. I do.

- Q. Please explain what this schedule is.
- A. The first three pages, numbered S1, S2, and S3, are [2003] summarization, and the remaining pages in here, numbers 1 to 8, are the detail of invoices for sales made to the Union Producing Company of scratchers and centralizers, and these were sales made by Weatherford Spring Company and by Weatherford Oil Tool Company.
- Q. Referring first to the fourth page of the schedule, which is marked in the lower right-hand corner with the numeral 1, what are the dates that appear in the left-hand column?
- A. Those are dates of invoices which we found of shipments to Union Producing Company.
- Q. And are the month and the day of the month and the year indicated?

 A. That is right.
- Q. Now, the first column to the right, what does that column contain?
- A. Well, that column is headed up on that page, "Invoice number," but that is a misnomer with respect to pages 1, 2, 3, and 4. It is all right with respect to the balance of the sheets. Actually, during the existence of Weatherford Spring Company, there was no invoice number placed on these invoices, and the number referred to there is an identification number that appears on the invoices and it will be in all cases one of three items. It will either be delivery ticket number or the work order number or it will be the customer's purchase order number. [2004]

And where they are indicated "D/Ts" for deliv-

ery tickets; "W/O" for work orders, and no indication of the customer's purchase order. It was only put down as a matter of identifying should it be necessary to go back and to check up or to explain to another auditor the billings here.

The Court: The "C/M" indicates credit memorandum?

The Witness: That is right.

The Court: "W/O" work order; that is "W/O."

The Witness: Yes.

The Court: And "C/M" and "D/T." "D/T" indicates delivery ticket?

The Witness: Right.

- Q. (By Mr. Scofield): Do I understand your testimony to be, during the period that scratchers and centralizers were sold by the Weatherford Spring Company that there was no invoice number used?

 A. That is right.
 - Q. What period of time does that cover?
- A. Up to December 15, 1948. In the case of the invoices which you see down here, commencing after December 15, 1948, there was a very short period there, I think maybe only that half a month, when Weatherford Oil Tool didn't have any numbers on their invoices; but they substantially commenced right at January 1st of '49 to put invoice numbers on.
- Q. And thereafter did the Weatherford Oil Tool Company [2005] have invoice numbers?
 - A. That is correct.

- Q. To identify their invoices?
- A. That is correct.
- Q. How did you use these delivery tickets in the preparation of this schedule? You might first state what a delivery ticket is.
- A. Well, a delivery ticket is a small slip or memorandum which usually accompanies the merchandise or invoice that accompanies the merchandise. It is receipted by the customer. One copy will be receipted by whoever receives the merchandise and will be returned, and a copy will go into the office for use in billing the merchandise. And from the delivery ticket—the delivery ticket, of course, indicates who the ultimate user was—and from that delivery ticket number is gotten the name of the user and that is put down on the invoice.
- Q. Did the delivery ticket accompany all of these invoices that appear on the schedules?
- A. No. There are many cases of consigned goods where there was no delivery ticket. In such case there would be a purchase order issued or some other memorandum of sale from consignment merchandise issued by the supply store or other person with whom the merchandise was on consignment, and that purchase order then became the method used for [2006] charging out on the invoice.
- Q. What are the work orders that you have listed here in this first column on a few occasions?
- A. The work orders came into existence mostly at times when all of the merchandise was not available to fill the order and, as a consequence, work orders were set up; and in some cases the work

orders for the material was manufactured through work order for that order, and in other cases it was partially filled at the plant and partially brought in from some place else to fill the order; and there are some cases where there is no delivery ticket number we used the work order that was indicated.

- Q. And what is the abbreviation "C/M" and how was that used in this schedule?
- A. Well, "C/Ms" are credit memorandums and they have been indicated—the amounts involved have been indicated by a figure in a circle, or I believe you will find in some schedules—not this particular one—but you will find in some schedules where a bracket was used. In any event—yes, a bracket was used on page 6, the numbered page 6 of the detail. In the month of July, 1949, a bracket is shown. In any event it indicates that that amount is deducted rather than added.
- Q. On the first page of your detail list there is the word "additional" during the month of April, to the left of [2007] the first column. What is the significance of that notation? That is on page 1 of your detail.
- A. That is a correction of a prior invoice and there was no quantity involved on that. It is merely just they charged the customer an additional \$24.75. It is the opposite from a credit memo.
- Q. In the second column of your detail schedule what is indicated?
 - A. Following invoice number is indicated cen-

(Testimony of Roy G. Bowersock.) tralizers, and those are the dollar sales of centralizers.

Q. And what is indicated in the third column?

A. Scratchers, the dollar sales of scratchers; and then in the final column is the total centralizers and scratchers.

Q. What period of time does this detail schedule cover?

A. From January 1, 1946. It covered from January 1, 1946, to October 31, 1953.

Q. Now, indicate, if you will, how the summary was prepared. You might first state where the summary is, that is, how it is designated in this Exhibit 176.

A. The first three pages here are indicated S-1, S-2 and S-3. Those are the summaries and they indicate the sales by months, with the exception of December, 1948, on S-1, has a half month on this first page and another half month on S-2, that being the sales the time that Weatherford [2008] Oil Company made the sales.

The other months are summarized by months. I will call attention to one thing, that is, that the columns here are reversed from that which they are shown on the detail. We have listed scratchers first and centralizers second, and on the detail we showed centralizers first and scratchers second.

We listed these centralizers and scratchers merely as a matter of convenience, because they are usually shown that way on the invoices. You, however, (Testimony of Roy G. Bowersock.) asked me to summarize them differently and that is the reason that was done.

- Q. Now, I would like to have put before you the chart, 176-A, and indicate, if you will, how this chart was prepared.
- A. This chart reflects dollar value of the scratcher sales made to Union Producing Company by both Weatherford Spring Company and Weatherford Oil Tool Company. At the left side of the chart the dollars are shown and the line divisions here are marked "500, 1,000, 1,500, 2,000," etc.; and those across the bottom here indicated the years and the months in the years. From that we took the total sales and plotted it on this chart for any given month during that period, and then that blacked-in the chart and that represented the sales for the period reflected in chart form.
- Q. From what schedule was Exhibit 176-A taken? Was it taken from the detail; was it taken from the summary? [2009]
- A. It was taken from the summaries, pages S-1, S-2 and S-3 of Exhibit 176.
- Q. I would like to have you put before you now the chart, Exhibit 176-B, and explain what that shows.
- A. Exhibit 176-B was prepared in exactly the same fashion as 176-A, and it reflects the dollar value of centralizer sales made by Weatherford Spring Company of Texas and the Weatherford Oil Tool Company to Union Producing Company. It,

too, was prepared from the summary figures in Exhibits 176, S-1, S-2 and S-3.

- Q. Is the dollar volume shown in the vertical column to the left?
- A. Yes, that is shown and the dates at the bottom, in exactly the same manner as the other chart, and with the same gradations; in other words, \$500, \$1,000, \$1,000, etc.
- Q. I notice in both these charts, Exhibits 176-A and 176-B, across the top there are arrows indicating "Weatherford Spring Company of Texas" and "Weatherford Oil Tool, Inc." What did you attempt to show by the arrows and the designations I have indicated?
- A. That was merely for clarification purposes, to show that the sales during the periods indicated were made by the respective companies, namely, Weatherford Spring Company of Texas and Weatherford Oil Tool Company. The first arrow goes over to December 15, 1948, and all of those sales are Weatherford [2010] Spring Company of Texas, and those from then on are Weatherford Oil Tool Company, Inc.
- Q. And there is a horizontal dotted line across the charts designated "Average sales per month from February, '47, through '49." How did you arrive at that?
- A. Well, for that particular period we computed the average monthly sales by adding all the sales together and dividing by the number of months during the period, and it came out to \$1,407 in the

(Testimony of Roy G. Bowersock.) case of the scratchers; and that dotted line was shown to indicate such average.

- Q. What does the chart 176-C show?
- A. 176-C represents a combined chart of both scratchers and centralizers, prepared in exactly the same fashion as 176-Λ and 176-B, to reflect the combined sales, as I said, of scratchers and centralizers made by Weatherford Spring Company of Texas and Weatherford Oil Tool Company to Union Producing. It, too, has the same dollar gradations and the years and months in the same fashion.
- Q. From what schedules was this chart prepared?
- A. Prepared from the summaries, S-1, S-2, S-3 of Exhibit 176.
- Q. Do these schedules and charts, Exhibits 176, 176-A, 176-B and 176-C, in your opinion, show a complete picture of the purchases of the Union Producing Company of scratchers and centralizers during the period covered by the schedules? [2011]
- A. Well, it shows a complete picture of the purchases of scratchers and centralizers insofar as these two companies are concerned; but it would not reflect the complete sales made by everybody to that company. In order to do that you would have to know what purchases were made by it from other people handling the same type of merchandise.
- Q. That is, in order to get a complete showing of the purchases of scratchers and centralizers of the Union Producing Company over the period of these charts and schedules you would have to have

such sales records of other companies who sold that company the same products?

A. That is right. [2012]

The Clerk: Here are copies of Exhibits 177, 177-A and 177-B for the court's use, your Honor.

The Court: I assume there is no objection to the court's making use of Exhibits 177, 177-A and 177-B for identification?

Mr. L. E. Lyon: No, your Honor. I have no objection to the court's having all the series of exhibits, 177 up to the subdivision of Exhibit 182, which I believe is the last one, and I am willing to stipulate that this witness will testify that those records were compiled in the same manner as he has testified concerning the Union Producing Company and from the same source of records and only that same source of records.

Mr. Scofield: I accept the stipulation and I think that will shorten the examination of this witness considerably.

The Court: Then what we have been over is the procedure in the compiling of Exhibits 176, 176-A, 176-B and 176-C covering the customer, Union Producing Company, is that correct?

Mr. Scofield: That is correct.

The Court: Now, as I understand, the stipulation is that the witness will testify that a similar procedure and similar way of obtaining information from the identical source was followed with respect to Exhibits 177, 177-A and 177-B, dealing with the

(Testimony of Roy G. Bowersock.) customer, Gulf Oil Corporation. Is it Gulf Oil Corporation? [2013]

The Witness: Yes, sir.

The Court: And likewise with respect to Exhibits 178, 178-A and 178-B, dealing with the customer, California Company, and with respect to Exhibit No. 179, dealing with the customer, The Texas Company, which includes also Exhibit 179-A; and likewise with respect to the customer, Standard Oil Company of California, as shown on Exhibits 180 and 180-Λ, and with respect to the customer, Amerada Petroleum Corporation—is it?

Mr. Scofield: Yes, sir.

The Court: ——as shown on Exhibit No. 181?

Mr. Scofield: No. 181, your Honor.

The Court: That is the stipulation as I understand it.

Is that a fair statement of it?

Mr. L. E. Lyon: Yes, your Honor, that is a fair statement of my stipulation.

Q. (By Mr. Scofield): In the case of each of these companies, Mr. Bowersock, do the schedules and charts in your opinion show the complete picture of the sales, of the purchases of scratchers and centralizers, to the individual companies named, during the period covered by the schedules and charts?

A. Was your question "purchases" by these companies?

Q. Yes.

A. Or sales to them? I understood you to [2014] say "purchases" to these companies.

Q. Purchases by these individual companies.

A. That is correct. It is the same answer I gave a while ago in connection with the Union Producing Company.

I believe these schedules reflect a reasonably correct picture of the sales of scratchers and centralizers or the products indicated in each case, made by Weatherford Spring Company and Weatherford Oil Tool Company, Incorporated, but, of course, it is not the complete purchases of those companies of scratchers and centralizers because of course there would be sales of other people dealing with the same merchandise. It would be necessary to reflect their total purchases from everywhere.

The Court: But these exhibits that we have been mentioning do truly and accurately reflect any sales made to those customers we have mentioned, by plaintiff or plaintiff-interveners in this case, is that correct?

The Witness: In my opinion, yes, sir.

Mr. Scofield: To supplement papers prepared by plaintiff enumerating the charges of unfair competition, at this time, your Honor, I should like to add the exhibits and the evidence that has already been offered.

The Court: I don't quite understand you.

Mr. Scofield: With respect to the companies—with respect to the charts and schedules which have now been [2015] offered; in other words, in this

charges of unfair competition which we prepared under your instructions, there was indicated the evidence and the exhibits that the plaintiff would rely upon to substantiate the charges, if you recall.

Now, besides these charts which indicate the loss of sales, I should like to indicate also the exhibits and the invoices which have been offered and are in evidence in this case with respect to these particular companies.

The Court: I assume that all the evidence which has been received in the case relative to that issue would be here on the issue of unfair competition.

Mr. Scofield: It is, your Honor, but I thought that I might, if you please, indicate to you what evidence is in the case now, what has been offered in the way of exhibits and depositions that have to do with these particular companies, if you care to have them.

The Court: Well, yes, or you may reserve it for oral argument. If you are ready to indicate now, you might indicate it, but first I assume that you wish to offer these exhibits which have been discussed here this morning.

Mr. Scofield: Yes, sir, I want to offer them.

The Court: Exhibits 176, 176-A, 176-B and 176-C for identification, do you offer them?

Mr. Scofield: Yes, sir, I offer them. [2016]

Voir Dire Examination

By Mr. L. E. Lyon:

- Q. There has been handed to me a file of loose-leaf character, having on its face "Checked"—will you read what it says on there?
 - A. If I can, sir.
 - Q. That is why I gave up.
- A. I take it to mean "Checked 5-20-49," the initials "J.B.E.," "Rechecked against Schedule A, checked against accounts receivable ledger," and then oblique—wait a minute—a bracket? A bracket, let us call it, and then to the right of the bracket, that is, between those last two lines there right at the bracket. "Checked 9-10-49"—I [2018] presume it is a date—and the initials "J.B.E."

Would you like more explanation of that?

- Q. Did you read that as "9-10-49"? Isn't it "51," isn't that September 10, 1951, and with your initials after it?
 - A. No, sir, they are not my initials.
 - Q. They are not your initials?
- A. I believe it is a "5" there, since you mention it.

Mr. Scofield: Where is that, here (indicating)? The Witness: Right here.

- Q. (By Mr. L. E. Lyon): Whose initials are those, do you know? Are you familiar with that handwriting, in any way?
 - A. It looks like it might be Joel Etter.

- Q. Who was Mr. Etter?
- A. He was an accountant for Weatherford Spring Company for some months and then for Weatherford Oil Tool Company until about September 1, 1951.
- Q. Do you know when Mr. Etter started in to work for either of these companies?
 - A. Approximately. July, 1948.
- Q. Do you know what Mr. Joel Etter's position was just before he started to work for the Weatherford Spring Company?
- A. I didn't know him at that time, but I have been given to understand that he was an internal revenue agent.
- Q. In this file that has been handed to me, and the [2019] cover sheet of which you have read, are set forth a series of invoices. Now, do those invoices show sales of both straight and spiral centralizers? Will you look at them?
- A. (The witness examines papers.) Not in this folder. I have found no sales of straight centralizers. They are all indicated as spiral centralizers.
- Q. I note in the very first or second sheet in this file a ticket or a sheet which is in this case No. 7923, Weatherford Spring Company, Weatherford, Texas, date 12-19, "Ship to Union Producing Co., Box 711, Beeville." Is that Beeville or Bellville?
 - A. It looks like "Bellville, Texas."
 - Q. It looks like "Bellville, Texas."
 - A. The invoice indicates "Beeville."
 - Q. B-e-e-v-i-l-l-e. And then on that invoice are

enumerated the following items, under "Classes of Items," I believe, that were for sale at that time, is that what it is, on the right-hand column?

- A. Let us put it this way: the usual classes of items.
- Q. The usual classes of items that Weatherford Spring Company was making and offering for sale at that time? They may have offered some other special items. Is that what you mean?
- A. Presumably, presumably. The delivery ticket seems to be just a—it has these pictures down here alongside of [2020] different types of centralizers and cement baskets and scratchers.
- Q. And those items are—the first one in the column is a spiral centralizer, the second one is scratchers divided into two types, standard type and close tolerance type, which is subsequently divided into solid and split?

 A. Correct.
- Q. What do you understand "solid" and "split" to mean, or do you?
- A. Well, in the case of a split scratcher, the collar is not welded together, it is open.
- Q. Now, then, the next items are straight centralizers, of which there are three classifications, close tolerance type, standard type, and gravel packing type, and in the last class of goods is "cement retaining basket." Now, is that correct?
 - A. That is right.
- Q. Now, I notice on this particular ticket that I have reference to there were 12 7-inch spiral centralizers, and those spiral centralizers, as shown by

the invoice, were sold at \$33 per centralizer, is that correct?

A. That is correct.

- Q. And there are 71 7-inch I presume solid type, standard type scratchers sold?
 - A. Right. [2021]
- Q. And those were sold at the rate of \$18.25 apiece?

 A. That is correct.
- Q. And those were net prices as shown by this invoice? A. Yes, sir.
- Q. Now, in these tabulations that you have made of sales to the companies as shown by Exhibits 176 to 181, inclusive, in any case did you make any differentiation whatsoever between the type of scratchers or the type of centralizers sold to any of the companies, as to whether they fell into any one or more of these different classes which are enumerated on this invoice sheet which I have referred to, or this delivery ticket?
- A. Did I make any differentiation in the type of centralizer or type of scratcher?
 - Q. That is correct. A. No, sir.
- Q. Now, do those tabulations include tabulation of sales of spiral centralizers in some cases and in some cases straight or what is known here as straight centralizers of the close-tolerance standard type and gravel-packing type?

A. If there was a centralizer sold of the straight type or centralizer sold of the spiral type, there would be no difference, it would be all listed, so far as my schedules are concerned, in the classification of centralizers.

- Q. Now, wasn't that also true of the gravel-packing type [2022] of centralizer? Isn't that also included?
- A. Undoubtedly it is in there. I don't remember particularly of seeing any. I do know that the cement baskets were not included. If it was called a centralizer on the invoice, my boys undoubtedly included it in there.
- Q. And the gravel-packing type of straight centralizer is used in the process of packing gravel in a well, isn't it? Do you know?
 - A. You can't prove it by me.
 - Q. You don't know what it is used for?
- A. I don't know what it is used for or if for anything.

The Court: Is there any stipulation as to this? Mr. Scofield: I am sure I don't know. I don't want to stipulate, your Honor.

The Court: Can't you learn from your client?

Mr. Scofield: I can learn from him.

Mr. Jesse E. Hall: It can be used for either purpose, for cementing or in gravel packing.

Mr. L. E. Lyon: And that stipulation may also be extended to all essential portions in there, that they can be either used in cementing or in gravel packing?

Mr. Scofield: I will stipulate to that.

Mr. L. E. Lyon: I will accept the stipulation.

The Court: Very well. [2023]

Q. (By Mr. L. E. Lyon): I wish you would examine this file and see if it does not show a uni-

form price of \$33 per centralizer for all spiral centralizers or all centralizers sold to the Union Producing Company during the period covered by this file, which is from February 11, 1947, to December 19, 1947. And if you find any variation from that, will you read it? Tell me also if there is a size differentiation, also, at the same time, and I was directing that primarily to the 7-inch centralizers which I believe is the majority of the sales.

- A. There is one here which is a 103/4-inch centralizer.
 - Q. And how much is that sale price?
 - A. \$45.10.
- Q. I believe it might be well to place before you this catalog, the 2-1-47 catalog that has the price schedule in the back of it. What exhibit number is that? [2024]
- Q. See if in looking through there you find any deviation whatsoever from the price schedule with reference to pipe sizes as shown on page 6 of Exhibit L, Mr. Bowersock?

 A. No, sir.
- Q. There is no deviation whatsoever between the selling price and published list price as shown on page 6 of Exhibit L, is that correct, throughout this period of time of sale to the Union Producing Company?
- A. That is right. This page 6 is headed up "Price"—
- Mr. L. E. Lyon: I would like to have for the same period of time the original records, for the

same period of time of sales to the Gulf Oil Company, please.

- Q. Did you examine these invoices with respect to sales to receipts from the companies to ascertain what the companies actually paid compared with what is shown by these invoices?

 A. No, sir.
- Q. You do not know, then, that the companies ever paid what is set forth on these invoices, is that correct?
- A. Except that, as I told here in my other testimony, that I test-checked to our records, to the general records, and you will find that credit memorandums have been given effect to in these schedules if there were any. I found no discrepancies in my check to the general ledger.
- Q. Now, you testified that you examined these books of the Weatherford Spring Company for the Internal Revenue [2025] or income tax purposes, is that correct?

 A. That is right.
 - Q. When did you start that examination?
- A. At the time I first came into the picture the revenue agents were already examining the records and—
 - Q. Which agents were those?

Mr. Scofield: Let him finish his answer.

- A. And that was approximately—that was the first of June, 1951.
- Q. (By Mr. L. E. Lyon): And which agents were those?

A. An agent by the name of Scott and an agent by the name of Parker.

- Q. Of which side of the Internal Revenue, income tax department, did those agents belong?
- A. Mr. Parker is an ordinary revenue agent. Mr. Scott is—well, is what we call a S.I. man.
 - Q. That is? A. Special Intelligence.
- Q. Special Intelligence connected with the fraud division, is that correct?

 A. That is correct.
- Q. And when was that that you say you started that examination?

 A. In June of 1951.
- Q. In June of 1951. And at the time that you went [2026] into the picture, why, these two Internal Revenue agents were already examining the books?

 A. That is correct.
- Q. How long had they been examining the books?
- A. Well, this is hearsay on my part, but I think they first started December of '50, or maybe in November, the latter part of '50, and they weren't in and out—I mean they were in and out, and not working consecutively on this examination, and they certainly did not work on it practically at all during the summer, because we were making an audit of the other companies and we were in each other's way. As to just how much they had worked on it, and so forth, that is hearsay on my part.
- Q. In connection with this examination that you made of the Weatherford Spring Company books was any determination made of a ratio, from the books, of cost of manufacture of scratchers or centralizers to sales price?
 - A. Do you mean during my audit?

- Q. Yes.
- A. As I say, I did not make an audit of Weatherford Spring Company in that respect. I made an audit of Weatherford Oil Tool Company and installed a new cost system for them. I have fostered the cost system all the way through. I would not—I would stand upon my professional immunity in not giving figures of Weatherford Oil Tool [2027] Company unless I had their specific permission.
- Q. Did those cost figures that you have used anywhere show any material deviation from the usual rule of three or four to one differential between cost and sales price?

 A. Yes, sir.
 - Q. How much? A. Quite a bit.
- Q. How much? What was the approximate ratio? I mean in centralizers and scratchers.
- A. Well, I am trying to deliberate how far I can go without divulging information that I am not supposed to. Would it be all right if I just say that it was more than five times, the selling price was more than five times the cost?
- Q. Well, if you will say it is between five and six times, and not more—more than five, but not as much as six times, that would probably be satisfactory for my purposes at the present time.
 - A. I won't say that.
- Q. Well, all right then. Give me an inside and outside ratio. I am not curious. This is not for the purpose of being merely curious.
 - A. I would say that, as a general rule, on the

(Testimony of Roy G. Bowersock.) average it is more than five times and less than 15 times

Q. Well, that is too much of a spread. Take with [2028] respect to centralizers of the seven-inch type——

Q. (By Mr. L. E. Lyon): ——spiral type. [2029]

Q. (By Mr. L. E. Lyon): The question, I believe, before you was: In determining a seven-inch centralizer of the spiral type what was the ratio of cost—and by that I mean total cost—to selling price, the selling price being established in the case of the Union Producing Company for that size at \$33 per scratcher, as shown by these invoices and also as shown by page 6 of Exhibit L, too?

A. In the first place, I don't know for sure what it was. In the second place, I am not too sure to answer without direct order of the judge and advice from my own counsel because of the professional ethics involved. [2031]

The Witness: I made an examination, your Honor, of Weatherford Oil Tool Company with respect to costs. We checked the costs from the inception of Weatherford Oil Tool Company. We know everything that happened during the existence of Weatherford Oil Tool Company. We could tell exactly what relationship the costs were, provided I had the records here in front of me.

But I did nothing with respect to Weatherford Spring Company in that examination, other than ascertain that the method of cost was approximately the same carried over one to the other. In consequence, I would be divulging information respecting Weatherford Oil Tool Company at a period when I was in public accounting and making an audit. Nobody has released me nor given me a right to make such divulgence. [2032]

* * *

The Witness: Very well. Allow me to make this statement: I don't remember exactly what the costs were. I know the costs changed during the period that we are talking about here from 1947—yes, this is 1947—from 1947 to date it has changed considerably at different times. And I don't remember what it was at any one time but, for your [2033] information, Mr. Lyon, I will tell you that I have threshed this thing out thoroughly with the agents and that the costs of a seven-inch centralizer, as nearly as we can determine by hindsight, was 10 per cent less than what the charge was to Weatherford Spring Company of Venezuela.

In other words, I found nothing to indicate that the billings of cost plus 10 per cent were not correct. And I have, as I say, already gone through that procedure with the Revenue Department.

Q. (By Mr. L. E. Lyon): Your testimony, then, is that the sale of these scratchers—I mean centralizers, for \$33 net to the ultimate user was on a cost

(Testimony of Roy G. Bowersock.) basis that the centralizer of that size cost less than \$2, is that correct?

- A. I have no reason to believe otherwise. That is correct.
- Q. There was a greater than 15 to 1 spread, according to your examination of the books, between cost and selling price?
- A. That is not true in whole. It may be true of the particular type of item.
- Q. Well, that is true with these seven-inch centralizers? A. Okay; that is right.
 - Q. Is that correct? A. That is correct.
- Q. And that is true irrespective of the weight, type [2034] or structure, is it? They were the types and weights being charged at the same rate of about \$33 a centralizer for a seven-inch size?
 - A. I don't believe I understand the question.
- Q. Well, I say, there was no special structure of any kind that you examined at any time, was there, as reflected by any of these records; it was just the type of seven-inch spiral centralizer as shown, for example, on page 6 of Exhibit L, and it is included in the column of type sizes, price, and weight in pounds as set forth on Exhibit L?
- A. I was not around there and, of course, I don't know what they were selling, what kind of centralizer the company was selling back here at the time of this catalogue which is dated 2-1-47; but I do know that the costs were as indicated.
- Q. There is nothing shown in your examination of the books of the Weatherford Spring Company

that reflected any particular or different structure of manufacture than was true of that type of centralizer, and I mean the spiral centralizer of that type; isn't that correct? You did not have any separate cost figures for some modified form or some different form of structure than was shown as the standard sales item of the Weatherford Spring Company?

Mr. Scofield: Do you understand the question? The Witness: Yes. He has given me with more knowledge than I have. I wasn't around back at that time and there is [2035] nothing in—you understand, Mr. Lyon, that there are no cost—

Mr. L. E. Lyon: I am only asking you about that one question.

Mr. Scofield: Let him finish his answer.

A. There are no cost records such as a normal manufacturing company nowadays has set up of even Weatherford Oil Tool Company, with a place where they can tell you how much it cost to turn the handle of one of their lathes. They didn't have any such cost records. And the only thing you can do in going back in past history like that is attempt to develop a cost by taking the records at that time and the type of operations, and by quizzing people who were there, and arrive at a cost. That is what I have had to do with respect to the revenue agents. And I assure you I have not been able personally to say that we did this and we did that, because I don't know. I wasn't there and I have no written records of it, sir.

- Q. (By Mr. L. E. Lyon): Now, let me ask you this question: There were no records, then, which showed a cost of any particular size or type of scratcher that you examined in the Weatherford Spring Company, were there?
- A. No, there was no cost records whatever of the Spring Company.
- Q. And then there were no particular cost records [2036] available by which you could determine what the actual cost was by record of the particular scratcher sent by the Weatherford Spring Company of Texas to the Weatherford Spring Company of Venezuela, was there?
- A. That is correct insofar as a record is concerned; there was no record there. It could only be determined by—well, of course, there is a record of the cost of materials and a record of the labor rates and that sort of thing from which you could develop, with time studies and subsequent experience.
- Q. Did you examine anything which would lead you to believe that there were any weight records kept of the weights of centralizers or scratchers sent by the Weatherford Spring Company to the Weatherford Spring Company of Venezuela in 1947, or to any other customer in Venezuela during that period of time?

 A. No.
 - Q. Weren't there shipping records available?
 - A. Yes, sir.
 - Q. Did not those shipping records show on them

the weight by item or the total weight of the shipment?

A. Total weight of the shipment.

- Q. Did you ever determine what the weight of the articles were that were sent in accordance with those shipping records?
 - A. I never did; no, sir. [2037]
- Q. Did you not consider that total weight or the weight of the item with respect to the cost of materials in determining what the approximate cost of the items were?

 A. No, sir.
- Q. You had figures, you say, which gave you the cost of the materials used at that time?
 - A. Yes, sir.
- Q. What good did the cost of the materials used do if you did not know the quantity of materials used?
- A. That is correct. It had to be by—it had to be from the testimony of someone else.
- Q. But those shipping records gave you the actual weight, did they not, without relying upon somebody's recollection?
- A. As a rule, they shipped scratchers and centralizers together, and different sizes together in a package, and it is difficult to rely on.
- Q. Did you take the shipping rates given in Exhibit L, for example, in this column on page 10 of Exhibit L, as the correct shipping weight of the items which were sent, say, to Venezuela at that time in determining these figures of cost?
 - A. No, sir.
 - Q. Why not?

A. Because we had the various types of the different [2038] items available at the plant, the various types of items that the companies had manufactured from the time they started, and by discussion with the people involved in it we were able to establish a price.

Q. Now, you had available records such as this record which I will hand you, which is a sale of the Weatherford Spring Company to the Asiatic Petroleum Company for Venezuelan shipment, which is dated December 1st, 1947, and which contains an actual weight list of the weight of the materials which were sent, being for all of these shipments, did you not? And I will hand you this set of photostats. [2039]

Just a moment. I will ask that the clerk mark these for identification first, there being five sheets of these photostats. I will ask that they be marked defendants' exhibit next in order and divide that into five pieces so each sheet may be separately numbered.

The Court: They may be marked as Defendants' Exhibits DM-1, DM-2, DM-3, DM-4 and DM-5 for identification.

Mr. L. E. Lyon: Yes, your Honor.

The Court: The clerk will so mark them.

(The documents referred to were marked Defendants' Exhibits DM-1, DM-2, DM-3, DM-4 and DM-5 for identification.)

Q. (By Mr. L. E. Lyon): The five sheets that

I hand to you have been marked Defendants' Exhibits DM-1 to DM-5, inclusive, for identification, and I am returning them to you so that we may add to the question that is before you, and that is, were there not records of this type available with respect to all shipments made to Venezuela in the year 1947, giving the precise shipping weights, the prices, the customer, and all other factors as set forth in Exhibits DM-1 to DM-5, inclusive? [2040]

* * *

A. I can read only about half of the material that is on these things given here.

Q. (By Mr. L. E. Lyon): The question before you, Mr. Bowersock, is only one question, which is with respect to these tabulations that you have made, did you have the records of the Weatherford Spring Company available to you for the sales of the same character as shown by Exhibits DM-1 to DM-5, inclusive?

A. Yes, we have records available. This happens to have quotations and——

Q. And did those records set forth the shipping weights, the actual shipping weights, as this record does?

A. They might have, Mr. Lyon. [2042]

Mr. L. E. Lyon: All right. I will ask that those records be produced.

Mr. Scofield: I do not understand just what records he is asking for now, whether the records of the Weatherford Spring Company of Venezuela—

Mr. L. E. Lyon: The Weatherford Spring Company records.

The Witness: This is some correspondence that Roland Smith had with somebody. The top letter is a letter from Roland Smith and I can't read half of it, to tell the truth about it, but there may be some weights available some place or other in something or other, I don't know.

The Court: What records do you demand be produced?

Mr. L. E. Lyon: The records of the Weatherford Spring Company which show the actual shipping records, which show the weights of the material actually shipped to Venezuela, and I have in front of me the invoice of the Weatherford Spring Company, which shows the gross weight of 811 pounds of 17——

The Court: You are reading from what now?

Mr. L. E. Lyon: I am reading from Exhibit DM-5, which shows the gross weight of 17 7-inch centralizers and 100 scratchers of 7-inch OD size with 5-inch bristles, which gives the precise weight characteristics that would be necessary to make a determination in a cost figure of that [2043] character.

Mr. Scofield: May I, your Honor, ask the witness a question or two with regard to the significance of these over-all weights, to bring out the absurdity of the over-all weight, that is, the relationship which the over-all weight of one of these boxes would bear to an individual item such as a 7-inch centralizer?

The Court: You may at the proper time, yes, as soon as Mr. Lyon completes his examination.

Do you have the records that have been demanded?

Mr. Scofield: No, we don't have those here.

Q. (By Mr. L. E. Lyon): Now, similarly, throughout these records you have statements of sales of scratchers of certain sizes. Now, have you made any determination by the Weatherford Spring Company records to determine what the ratio of cost of a 7-inch scratcher is to its selling price, as, for example, shown by this particular invoice to the Union Producing Company of November 22, 1947, which shows the sale of 103 7-inch solid, standard solid scratchers with 5-inch bristles at \$8.25, and I am taking the benefit of the fact that that is a misplaced decimal point in that statement, and showing a total of \$849.75? That is a misplaced decimal point, is it not?

A. Yes, I guess so.

Mr. Scofield: May I have the question read?

(Question read.) [2044]

The Witness: Yes, there was a similar question involved in this revenue agent's examination, which was the question of cost, of whether or not Weatherford Spring Company was selling to Weatherford Spring Company of Venezuela at less than cost, and similarly it was said on that price billed to Weatherford Spring Company that there was no reason to believe that it was incorrect, and as to exactly what the price was, I do not remember. I know the ratio was high. It is the same as it was

(Testimony of Roy G. Bowersock.) with centralizers, it was high between the cost and selling prices.

- Q. (By Mr. L. E. Lyon): Now, in making that determination, did you also consider the weight of the scratcher, did you know what the weight, for example, of a 7-inch scratcher was at that time, or did you make any effort to find out——
 - A. Yes, sir.
- Q. —what the weight of a 7-inch scratcher with 5-inch bristles was?
- A. Yes, sir. With respect to all the items, we made inquiry of persons available and asked them what type of things they were using, and then we compared them to the things being manufactured at that time, we actually weighed them.
- Q. Now, let me ask you, you had available records from the Weatherford Spring Company showing the shipments made, and I will ask you if you did not have available [2045] records similar to Exhibit DM-2 for identification, which shows on its face, and this was a December 1, 1947, invoice from the Weatherford Spring Company to the Asiatic Petroleum Corporation, item number 2, "100 Weatherford Reversible Scratchers, Standard Split Type, for use on 7" O.D. API Extreme Line Casing, to run through 95%" API Casing and in 8½" Open Hole, with 5" Bristles." And now on that invoice is a weight column giving the weight per article, which is 2.5 pounds, and in the same item 1 the 7-inch centralizers called for in that invoice are 25 pounds.

Now, didn't you have records of that kind available which were direct records, to determine the weights of these items, without reference to secondary evidence?

- A. If we did have, I did not know about it at that time.
- Q. Well, you have stated that you had records of this kind available with reference to the weights of the centralizers that were sold. Now, wouldn't those also show the weights of the scratchers that were sold?
- A. Well, I didn't say that I had anything more available for one than the other. Let me borrow Mr. Smith's glasses and maybe I can see what we have here.

Mr. Smith: You can't see though them. I am farsighted and you are nearsighted. They would not help you.

The Witness: I am sorry. That blurs. [2046]

Mr. L. E. Lyon: I will read it for you. The column here says, "Unit net weight," under that column and underneath it is "25" with a pound sign for the centralizers, and in the same column under it, for the scratchers, is "2.5" pounds, with a pound sign.

I will request, in the same way that I did before, that these records of these sales be produced, particularly the sales made during this period of time, as the best evidence and which are not here available, and at the present time I will base my objection to the offer of these summaries in evidence on

the ground that they are not based upon the best records, and the best records are not available for consideration.

Mr. Scofield: I cannot see what relationship the weights of these particular items have to the amounts that are included in these tabulations, that is, I can't see where they bear any relationship whatsoever to the loss of sales of the different companies. Now, whether these things were being sold below cost in Venezuela or whether they were being sold below cost in the United States is an entirely separate thing.

The Court: Of course, aren't you confronted with this situation, Mr. Scofield: counsel is entitled to have all the best evidence offered?

Mr. Scofield: Yes, sir. [2047]

The Court: And as I interpret his objection, it is to the effect that "I will insist upon those records, being the best evidence, being produced," and unless these other records are produced, which is to say that even though the weights or the records as to the weights may not be requisite to your laying a foundation for an introduction of these documents now offered, that counsel is offering or suggesting an evidentiary bargain to you, that is, as I interpret his objection.

Mr. Scofield: Well, we are submitting here and offering all of the records, the sales records of the Weatherford Spring Company and the Weatherford Oil Tool Company, that have to do with the

sale of centralizers and scratchers to the companies that these schedules indicate.

Mr. L. E. Lyon: You are not.

The Court: Do you have all the records?

Mr. Scofield: Yes, sir, we have all the records here.

The Court: That is, all the delivery tickets?

Mr. Scofield: We have all the delivery tickets, all the ledgers, all the sales journals, and these are offered here and have been offered since November 18th, which I think was the date we first made them available to the defendants.

Now, what he is asking for is a cost record of some sort to establish the cost of a particular item which was [2048] sold either in Venezuela or to one of these companies, or to them all, if you please. It has absolutely nothing to do with the selling price or the loss of sales or the enumerations that are here being offered in evidence with regard to sales to the individual companies and the loss of sales to these companies.

Now, what difference does it make, your Honor, if-

The Court: That is a matter of argument. I am speaking now purely of this objection. If what you say is correct, then it is for the defendants to demand production of these documents upon their own case.

Mr. Scofield: That is correct.

The Court: In other words, if you laid a strict foundation for the introduction of these charts that

you are now offering and which are mentioned in Exhibit 176 for identification, then the other records may be beside the point.

Mr. Scofield: It is going off on a tangent. We are going off on a tangent here, on a question of costs which are not involved in this situation at all. That is, we are offering to him tabulations of sales.

The Court: Perhaps the evidence is out of order, strictly speaking, for the purpose for which it is offered.

What do you say as to that, to the contention that all the original documents, the best evidence to support Exhibit 176, et seq., that are here ready to be offered in evidence, [2049] exist—

Mr. L. E. Lyon: If there is no objection, I would like to pass to the court for comparison Exhibit DM-2 for identification and the invoices that have been produced here.

The Court: What would be the purpose of it?

Mr. L. E. Lyon: The purpose of it is to show—and I have asked the witness if these were available and he says he does not know——

The Court: By "these" you mean-

Mr. L. E. Lyon: These were the original invoices, and very peculiarly——

The Court: "These were"—

Mr. L. E. Lyon: Exhibit DM-2 contains a column which gives a net unit weight, and this is a Weatherford Spring Company invoice, a photostat of it, which I have in my hand. The invoices which

are produced and which are offered to me contain no such column, like almost any such tabulation.

The Court: Has the witness made an explanation of that?

The Witness: Certainly, sir. This is a copy. He has an original of an invoice form, and this is a bookkeeping copy. They never are made the same.

The Court: Well, you mean that the weight would be on the original and not on the bookkeeping copy?

The Witness: No. They wouldn't put any weight on the original. [2050]

The Court: Well, the weight is on this.

Q. (By Mr. L. E. Lyon): How do you explain the weight on Exhibit DM-2 and the weight shown in these copies that you have offered differ?

A. I don't know, sir.

Q. You don't know? A. Probably—

Mr. Scofield: Your Honor, that is not an original.

The Court: The witness has answered. Do not interrupt the witness.

Mr. Scofield: I am sorry.

The Witness: I am sorry, your Honor. I can't see what he has here.

The Court: It doesn't make any difference whether you can see it or not. If you can examine it, you can tell us about it. It is not for you to figure out what counsel is driving at.

The Witness: No. I am not doing that. What bothers me, though, is that this here is a quotation,

it says "Quotation," that much I can read, up here at the top of the page, and it is not the same as an invoice.

Mr. Scofield: That is not an invoice.

The Witness: He is calling it an invoice and it is not the same.

The Court: Isn't it your simple answer, then, that [2051] Exhibit DM-2 is not an invoice and the others are?

The Witness: It is not an invoice to the effect—if I could see these things a little more clearly, maybe I could see what is bothering you.

The Court: It doesn't matter or make any difference what is bothering him. You answer the question.

The Witness: Yes, sir.

The Court: And don't try to think ahead as to what counsel is driving at. Just answer the question.

Is your answer to counsel that Exhibit DM-2 is not an invoice?

A. It is not an invoice.

The Court: It is not an invoice?

The Witness: That is right, sir. [2052]

Q. If DM-2 is not an invoice, what is it? It gives the price, weights, price per unit, and total price; you say it is a quotation?

A. That is right. It is headed at the top—

Q. Is a record of these quotations by the company available in the books of the Weatherford Spring Company?

- A. Where quotations I don't know whether they are. My answer is I don't know.
 - Q. You never examined any of them?
- A. I don't know at the present time, without looking.
- Q. Did your examination of the books of the Weatherford Spring Company show that sales were made pursuant to such Weatherford Spring quotations?

Mr. Scofield: Now, if your Honor please-

- A. Yes, sir. I remember that there were quotations. I don't remember specific sales, sir.
- Q. (By Mr. L. E. Lyon): Are those quotation records available—

Mr. Scofield: I am going to object to this examination.

The Court: Just a moment. Wait until the question is asked.

Q. (By Mr. L. E. Lyon): Well, those quotations records, then, from which the sales were actually made are available, aren't they?

A. I don't know. [2053]

Mr. Scofield: I am objecting, your Honor, to any further examination with regard to these so-called invoices, DM-1 to -5, because they are not invoices. I have looked at them and what they are, they are quotations by Roland Smith and they are not made from the records of the company. They are quotations made by Roland Smith to the—

The Court: I cannot accept your testimony, Mr. Scofield.

Mr. Scofield: I object to them because they are not invoices, as was purported, that is.

Mr. L. E. Lyon: The witness has testified—

The Court: It is not necessary that the record system start with invoices. It may start with an order blank, or it may start with a quotation which has been accepted.

Mr. Scofield: That is true, but he is examining him on what he purports to be an invoice and all his examination is with regard to something that is not an invoice. That is, his questions have to do with records of the company to support a document which is not what it is purported to be.

The Court: To support what document?

Mr. Scofield: The document he has, this DM-1 to DM-5. He is asking the witness as to whether or not there are records of Weatherford Spring Company that do not indicate the weight of these individual items which are on that quotation. Those quotations, DM-1 to DM-5, are merely quotations of Roland Smith. [2054]

The Court: I do not know. I do not know what your records are. That is what the inquiry is about. There might be three records in your system that precede the invoice, or might be five for aught I know.

Mr. Scofield: My objection is, your Honor— The Court: If a quotation sheet precedes the invoice, that is part of the system of records, isn't it? Mr. Scofield: Yes. But his questioning has been (Testimony of Roy G. Bowersock.) on the basis that this is an invoice. Now, if he puts it on that basis—

The Court: Perhaps counsel misnamed it, but that does not have anything to do with the system of records. [2055]

Cross-Examination

By Mr. L. E. Lyon:

- Q. You have testified to the elements which make up the selling costs and you have examined the books of the Weatherford Spring Company. Will you tell me just specifically what the items were that were charged to such selling costs?
 - Λ. What items are charged to selling costs?
- Q. How much was charged to entertainment; do you recall that?

 A. Quite a lot.
 - Q. How much?
 - A. I don't recall the exact amount, no.
 - Q. Was that the major item?
 - A. No. [2076]
 - Q. How did it compare with commissions?
 - A. Not as large.
 - Q. Well, what was the ratio?
- A. Depending on which year you are talking about. On an average about a tenth.
 - Q. What was a tenth?
 - A. Traveling and entertainment.
- Q. All right. How much was the total charge in 1947 or in 1948, let us take it—1948 of the Weatherford Spring Company for entertainment?

- A. I don't remember now.
- Q. Well, do you remember whether it was in thousands?

 A. Yes.
 - Q. How many thousands?
 - A. I said I didn't remember.
 - Q. Well, was it in five figures or six figures?
 - A. Counting pennies?
- Q. I said not counting pennies; on the left-hand side of the decimal point. A. Five figures.
 - Q. And for what were those expenditures made?
- A. A portion is traveling and entertainment and gifts.
 - Q. Of what character?
- A. There is also included in that account Christmas gifts to employees and other gifts at other times during the year. [2077]
 - Q. Gifts to whom?
 - A. Such as turkeys—

Mr. Scofield: Let the witness finish his answer.

- A. Turkeys or items of such to salesmen and the service employees.
- Q. (By Mr. L. E. Lyon): And gifts to who else?
- A. I don't know exactly. I don't have a list of them.
 - Q. And traveling expenses for whom?
 - A. For the sales and service—
 - Q. And for who else? A. —personnel.
 - Q. And for who else?
- A. Well, sales and service personnel include the whole thing. Of course, there were such people as

welders and that sort of thing get in on there. I don't know for who else, I don't recall.

- Q. Did that 60 per cent that you talk of include 60 per cent of the \$156,194 check received from the Mene Grande Oil Company?

 A. No, sir.
 - Q. That was not included at all?
 - A. No, sir.
- Q. Does it include any of the other checks received by the Weatherford Company from the Mene Grande Oil Company or any proportion of [2078] them?
- A. Not after the date the sales were made through Weatherford Spring Company of Venezuela.
- Q. Now, what, specifically, were these gifts given to people other than sales service, sales department?
 - A. I don't know. I wasn't there.
 - Q. You do not know? A. No, sir.
 - Q. It did not show on the books?
- A. If it does show, I didn't see it as to who the gifts were to.
- Q. Did you find a charge on the books for an elk hunt?
- A. I would imagine there might be charges for an elk hunt. There are charges in Weatherford Oil Tool Company's records for deer and elk hunts.
- Q. How about the Weatherford Spring Company?

 A. I don't recall.
 - Q. You don't say it was not there?
 - A. I don't say it was not there, because I know

(Testimony of Roy G. Bowersock.) that such things did occur in the Weatherford Oil Tool Company.

Q. So this 60 per cent sales service includes these matters of gifts, these matters of expenditures for traveling, these elk hunts, and others items of that kind; is that what you mean by your testimony?

A. They are included; yes, sir. [2079]

JOHN A. HALL (Recalled)

Direct Examination (Resumed)

By Mr. Scofield:

- Q. I put before you, Mr. Hall, Exhibit L and call your attention to the tabulation in that exhibit that shows the weights of the centralizers. Do you find that?
- A. On page 6 I find the weights of spiral centralizers, over on the left-hand block on that upper left-hand side.
- Q. Did you have anything to do with the preparation of that tabulation? A. Yes, I did.
 - Q. What was it? [2081]

Cross-Examination

* * *

By Mr. L. E. Lyon:

Q. Mr. Hall, you testified that you are a vice president of the Weatherford Oil Tool Company,

is that correct? A. That is correct.

- Q. How long have you occupied that position or held that title?
- A. I would say since probably the beginning of 1949.
- Q. What office in the Weatherford Oil Tool Company did you hold before that?
- A. I also held the office of secretary-treasurer. I had a title of vice-president in charge of research and development, in view of the type of investigation work that I did. In recent years, since 1951, I took on the title of vice-president strictly and relinquished the title of secretary-treasurer.
- Q. Have you been an officer of the Weatherford Oil Tool Company since it started in active business on December 15, 1948? [2097]
 - A. Yes, I have.
- Q. Either in the capacity of secretary-treasurer or vice-president, then, I take it?
 - A. That is correct.
- Q. What office or offices have you held in the Weatherford Spring Company of Venezuela?
 - A. None.
 - Q. None at any time? A. None.
- Q. What office have you held in the Hall Development Company, C.A., a Venezuelan corporation?

 A. None.
- Q. What office do you hold or have you held in the Weatherford, Ltd., a corporation of the Province of Alberta, Canada?

- A. I am president of Weatherford, Ltd., from the beginning.
- Q. What office do you hold in the Weatherford Internacional, S. A. de C. V., a corporation of Mexico?

 A. None.
- Q. What office or offices did you hold in the Nevada Leasehold Corporation?
- A. I believe secretary. We can go to the records for it.
- Q. What office did you hold in the Parker Industrial [2098] Products, Inc.? A. None.
- Q. In what part of 1940 was it that you first started in in an effort to sell centralizers either made by the Houston Pipe Appliance Company or offered for sale by that company or by the Weatherford Spring Company?
 - A. In what part of 1940?
 - Q. Yes.
- A. From the very beginning of any manufacture of the Houston Pipe Appliance I figured in the selling efforts. I would say probably somewhere around January, February, 1940.
- Q. How long was it after you were engaged in the sale of centralizers—and I presume that they were at that time only spiral centralizers, is that correct?
- A. We had both spiral and some straight centralizers, yes.
 - Q. And when?
 - A. Somewhere around in that same period.
 - Q. Well, that same period, as I understand your

testimony, is sometime in January, February or March of 1940; was that correct?

- A. We had spiral centralizers throughout that time. I don't just recall the exact date of making up, where we had some straight centralizers made up, but I do remember that. [2099]
- Q. You do not even remember whether it was in that period, do you?
 - A. Not in that particular period.
- Q. All right. Sometime in the year 1940, then, let us say, you started in to manufacture and sell or offer to sell, besides the spiral centralizers, a straight centralizer, is that correct?
- A. Sometime in 1940 we did offer some for sale; that is right, or offered them for sale.
- Q. Offered straight centralizers for sale sometime in 1940? A. That is correct.
- Q. And that is as near as you can position the time or determine the time, that it was sometime in 1940?
- A. It was very probably towards the latter part of 1940——
 - Q. What was that date with reference to—
- A. —or possibly somewhere around October or November.
- Q. What was the date of that period that you changed the name under which you were doing business of Houston Pipe Appliance to Weatherford Spring Company?
 - A. Well, as I recall, we started doing business as

the Weatherford Spring Company somewhere around—around or about April of 1941.

- Q. Then it was about five or six months before you [2100] changed the name to Weatherford Spring Company that you offered for sale first a straight centralizer, is that correct?
 - A. About, yes.
- Q. Isn't it true, Mr. Hall, that straight and spiral centralizers are used now interchangeably even by the same company, will use a straight centralizer now and will use a spiral centralizer maybe on the next well?
- A. That is not correct, Mr. Lyon. You are making an assumption.
 - Q. It is not correct at all? A. No.
- Q. Do you sell straight and spiral centralizers to the same oil companies?
 - A. Ask that again.
- Q. I say, do you sell straight and spiral centralizers to the same oil companies?
- A. Yes. It depends on the conditions of the well, the type of pipe that is being set, and the area that it is being set in.
- Q. That is, then, as to which you recommend, whether it is a straight or a spiral centralizer?
 - A. That is as to what they use.
- Q. Well, now, you have been on wells, you have been servicing and directing the operations, as you have testified. I believe, in the use of centralizers and scratchers in the [2101] cementing of oil wells, haven't you?

 A. I certainly have.

- Q. Now, you have been on there where they have used in a string scratchers and spiral centralizers?
 - A. I have.
 - Q. And cemented the wells? A. I have.
- Q. And I mean that both were Weatherford products, that in the all-inclusive state of Weatherford Spring Products?

 A. I have.
- Q. You have been on the wells where they have cemented the wells, using straight centralizers and scratchers both of Weatherford make and have cemented the wells?

 A. I have.
- Q. In that process you have directed or observed or serviced the wells in which they have mounted the centralizers, say, 90 feet apart; isn't that a correct approximation?
- A. That is not necessarily correct. We mount them—
 - Q. Well, you have used them-
 - Mr. Scofield: Let him finish the answer.
- A. We mount them all the way from 15 feet apart, sometimes 10 feet apart, to as much as 90 feet apart.
- Q. (By Mr. L. E. Lyon): All right. Now, you have been on a well where they have been 90 feet apart on the casing?
 - A. I have, yes, approximately. [2102]
 - Q. That was the question? A. Yes.
- Q. And between those centralizers there were mounted scratchers, beginning right at the top of the lowest centralizer, about 15 feet apart and ex-

tended right through in that spacing or length of casing covered by the centralizers, haven't you?

- A. Let us say——
- Q. Now, isn't that true?
- A. ——beginning at the shoe below the first centralizer and continuing on up. That is the way we run them.
- Q. And, as specified in your catalogues, you have been certain that a scratcher was mounted immediately above the top of the centralizers, haven't you?
 - A. Not necessarily immediately above.
- Q. I have been asking you if you have upon a well when you have done that? A. Yes, yes.
 - Q. As specified in your catalogue?
 - A. We put them above and below, Mr. Lyon.
 - Q. All right. A. The centralizers.
- Q. Now, you have instructed that the casing be reciprocated with the scratchers and centralizer on it to condition the well while you were circulating drilling [2103] fluid, haven't you.
- A. What do you mean by condition the well? That is really a compound question.
- Q. All right. Take the word "condition" out. You have instructed that the casing be reciprocated while you were circulating the drilling fluid?
- A. That is very correct. All the pipe must be moved in order to keep it free. During the periods of movement, when you get down to the bottom of your travel you must come back up and then start back down.
 - Q. And you have been on a well under the condi-

tions that I have outlined, where the distance of reciprocation of the casing, say, was approximately 35 feet vertical movement, have you not?

- A. Sir, I have been on wells where the distance was 60 feet vertical movement.
- Q. All right. I am taking, then, this well where you have scratchers 15 feet apart with centralizers 90 feet apart and the reciprocation has been in the neighborhood of 35 feet, hasn't it?
 - A. Mr. Lyon, you can't pin me down to that.
 - Q. Just answer the question.
- A. I have taken it all the way from one inch clear to 60 feet.
- Q. I will concede that you have taken it all the way [2104] from, but I am asking you: Haven't you been on them when the conditions were followed as I have outlined them? You may have done other things, too, at some other time.
 - A. I have worked on all of those distances.
- Q. All right. Then your answer is "yes," that you have reciprocated to 35 feet?
 - A. To at least 35 feet and above, yes.
- Q. All right. Now, then, you have discontinued the introduction of the cement—I mean of the drilling fluid or rotary mud into the well and started pumping cement in the well or a cement slurry into the well, haven't you?
- A. Started pumping a cement slurry following the rotary—wait a minute. I discontinued pumping.
- Q. And you discontinue pumping to connect the cement line to the swivel, don't you?

- A. Mr. Lyon, you don't connect our cement lines to a swivel.
 - Q. All right.
 - A. We don't even use a swivel.
- Q. All right. You have to stop cementing—I mean pumping of rotary mud in when you start pumping cement slurry in, don't you, irrespective of the mechanical means that is used to do it?
- A. Yes, we stop pumping rotary mud. We cease to pump it. Our lines are usually already hooked up and there is no [2105] interruptions.
- Q. And you pump a cement slurry down the casing into the well to the place where the cement is desired and you continue the reciprocation of the casing during that placement of the cement, don't you?

 A. That is correct, usually.
- Q. And what I have outlined is generally the practice which you have performed and has been performed, except perhaps for specific distances, throughout this period of time of your experience with scratchers and centralizers and cementing wells using scratchers and centralizers on a casing during this reciprocation of the casing, isn't that true?
- A. In a cementing operation we have pumped our cement into the pipe following the rotary mud. Sometimes there wasn't even any circulation of the rotary mud, by the way, too. So we just pumped it down a good portion of empty pipe and followed it on up like that, moving our pipe until we de-

cided to cease the movement of the casing for some reason or other.

- Q. And then when you decided to cease the movement of the casing you allowed the casing to stand and the cement to set, didn't you?
 - A. To stand and the cement set, Mr. Lyon?
- Q. To stand and the casing—you stopped the motion of it, so you let it stay there in the cement to set, didn't [2106] you?
 - A. We stopped the motion of the pipe.
 - Q. Yes.
- A. Yes, but we didn't stand it in that fluid cement necessarily.
- Q. When you stopped the reciprocation the cement set, didn't it, sometime or other?
 - A. It set sometime.
 - Q. All right. A. I would presume.
- Q. And the scratchers and the centralizers were still on the casing?
- A. The scratchers and centralizers we always hope, of course, are still there.
- Q. Well, as far as you knew they were still there?

 A. As far as I knew.
- Q. After you started the manufacturing in October or November or your offering for sale the straight centralizers when did you first offer for sale either a scratcher?
- A. We contacted Mr. Frank Boyd sometime around about March or April of 1941, Mr. Frank Boyd of the Union Oil Company. [2107]

- Q. (By Mr. L. E. Lyon): And you had a scratcher manufactured at that time?
 - A. My dad had one.
- Q. And did that scratcher correspond with this scratcher, Exhibit CJ, which I hand to you, in any way?
- A. The springs were sidewise. The springs had coils in them similar to these coils. It had round holes as against the square holes that you have here. The springs were in the scratcher housing with what I would call tinner's rivets or just rivets, whether they were tinner's rivets or what they were. It did not have this band that you have on the inside. What is this supposed to be, anyway?

The Court: The exhibit number?

Mr. L. E. Lyon: That is Exhibit CJ.

The Witness: We sure never made any scratcher exactly manufactured, exactly put together as this, but this scratcher that we showed was also made in halves.

- Q. (By Mr. L. E. Lyon): Made in two halves?
- A. Yes.
- Q. Are you familiar with the fact that your father took one of those halves to Texas with him?
- A. I don't know whether he took this half to Texas with him or not. I don't even recall just—
- Q. Isn't it a fact that before the agreement was made with Franz in Texas, at Weatherford, that it was after that [2108] agreement was made that the first scratchers were offered for sale?
 - A. I don't believe that is correct, Mr. Lyon.

I sat in on some testimony in Houston where that was brought out.

- Q. And that was testified to by witnesses including your father, wasn't it?
- A. The scratchers were offered for sale before the agreement, and I think that picture (indicating) showed it up. In other words, Dad had had the scratchers photographed before the Franz agreement.
- Q. Isn't it a matter of fact, as testified to by witnesses in Houston, that the rivet idea was first developed by Mr. Franz in Weatherford after the agreement?
- A. What witness? They certainly didn't testify to that.

The Court: Are you asking the question whether the witnesses down there testified to it or whether it is so?

Mr. L. E. Lyon: Both, your Honor.

The Court: You can't ask both.

- Q. (By Mr. L. E. Lyon): Well, I am asking whether the witnesses that they called didn't so testify.
- A. None of those witnesses knew, as far as I knew.
- Q. Just answer the question. That is not an answer to the question.

The Court: You may answer the question.

The Witness: He has their testimony. [2109]

The Court: Do you remember whether they so testified or not?

A. I do not recall any witness testifying that Mr.

Franz put rivets in. He probably put rivets in after we did——

Mr. L. E. Lyon: Now, that isn't an answer to the question.

A. (Continuing): ——because we certainly were doing it there.

Q. (By Mr. L. E. Lyon): Now, when was the first sale of scratchers made by either Houston Pipe Appliance or the Weatherford Spring Company, to your knowledge?

A. You are going to have to go to somebody else for that, Mr. Lyon. I do not have any records on that. You can ask Mr. Hall on that.

Q. It wasn't until after the Franz agreement with Weatherford, was it?

A. You can't get it from me on that. That is something that I do not have any personal knowledge of, as to who the first scratcher was sold to.

Q. You have no knowledge of the selling of a scratcher prior to July of 1941 or the time, if I am correct in the statement, of July, of the agreement between your father and Mr. Franz for the manufacture of scratchers and centralizers in Weatherford, Texas, do you?

The Witness: Now, will you ask that compound question [2110] again now?

Mr. L. E. Lyon: Just read the question.

(Question read by the reporter as follows: "Q. You have no knowledge of the selling of a scratcher"——)

Q. (By Mr. L. E. Lyon): ——by you or by the Weatherford Spring Company?

(The pending question, as amended by Mr. Lyon, was read by the reporter.)

- A. I do not have any personal knowledge of the first sales of scratchers manufactured in Weatherford, Texas.
- Q. (By Mr. L. E. Lyon): Now, will you please answer the question: You have no knowledge of the sale of a scratcher by you or by the Weatherford Spring Company prior to July of 1941, have you?
 - A. By the Weatherford Spring Company, no.
 - Q. Or yourself? A. No, I do not.
 - Q. Or yourself?
- A. I do not have any, any personal memory of any such sale. There very probably were, but there again you would have to go to the man who was selling them back there.
- Mr. L. E. Lyon: I move to strike the witness' statement with respect to probabilities, as not being responsive to any question asked of him, your Honor. [2111]

The Court: What are the probabilities? We might go into them.

Mr. L. E. Lyon: No. He said probably there were. I asked him if he had any knowledge as to sales.

The Court: Motion granted as to that.

Q. (By Mr. L. E. Lyon): Now, following this manufacture of scratchers in Weatherford—and I

believe those scratchers were, were they not, the type illustrated by Plaintiff's Exhibit 88, or is that not one of the Weatherford scratchers?

- A. This looks like it is an attempted copy of a scratcher very similar to what we were making, but I don't recall of ever seeing any production scratchers that had the coils that—that had the holes that straight up and down, holding the scratcher in a plane.
- Q. And this Plaintiff's Exhibit 40, is that one of your scratchers? I am trying to find out merely to get you to identify which is one of your scratchers at the present time.
- A. This I will say is, from all appearances, a scratcher of our manufacture, there being no name on it.
- Q. All right. Now, is that the type of scratcher that was being made at Weatherford by the Weatherford Spring Company in July of 1951?
- A. In July of 1941—this basically is the same scratcher that my dad made. [2112]
- Q. Just answer the question, not at some other time.
- A. Are you asking if this individual spring link was the same?
- Q. I am asking if this scratcher, Plaintiff's Exhibit 40, is a fair replica of what the Weatherford Spring Company was manufacturing and offering for sale in July, 1941, from Weatherford, Texas.
- A. Why don't you ask me when this scratcher was made?

- Q. Just answer the question.
- A. And show me the other exhibits. You and I both know when each of the scratchers were made. Why try to trick me on some technical question that you are propounding?
 - Q. I am not trying to trick you at all.

I will ask that the witness answer the question. The Court: Read the question to the witness.

(The question referred to was read by the reporter, as follows: "Q.—I am asking if this scratcher, Plaintiff's Exhibit 40, is a fair replica of what the Weatherford Spring Company was manufacturing and offering for sale in July, 1941, from Weatherford, Texas.")

The Court: Just answer yes or no or "I don't know."

A. The scratchers that I have seen were identical as to mechanical function. The springs were—the spring shafts or tines, as some people might call them, the fingers that [2113] stick out, operated upon their reciprocation in a sidewise motion. There were coils in both of them. The scratchers were put in the bands with rivets. The springs in that scratcher were canted. These springs here are canted.

Concerning the length of the springs, I doubt that they were as long. Usually they were about three inches or thereabouts, or an inch and a half or thereabouts.

- Q. (By Mr. L. E. Lyon): Would it change your ideas any to know that this was a scratcher which was put in evidence and represented as being one of your manufacture, of the Weatherford Spring Company manufacture, and was placed in evidence on May 25, 1949?
 - A. I feel that it is one of our scratchers.
 - Q. Well, then, why don't you say so?
- A. This scratcher here was made in very recent years. I know by the paint that is on it, the kind of paint.
- Q. Now, can you tell me yes or no as to whether this is a fair replica of what you were manufacturing and offering for sale in July, 1941?
- A. Mr. Lyon, I have got to know what you mean by the term "replica."
 - Q. A duplicate.
 - A. You must define it.
 - Q. Duplicate. Duplicate, then.
 - A. Do you mean the way the two operate? [2114] The Court: He means in every way. "Replica"

means in every way. Is it a fair reproduction?

The Witness: That this was exactly like the pictures that my dad was making then, no.

The Court: Like the thing itself?

The Witness: The picture of the scratchers—

The Court: We are not talking about pictures. We are talking about scratchers. Is it like the scratcher? If you know, say so, and if you don't know, say so.

The Witness: He is trying to trick me into some

form of terminology. I can take the two scratchers and show you.

The Court: You do not need to worry, Mr. Hall, if you understand the question before you answer and if you give a truthful answer, you do not need to worry whether he is trying to trick you or anything. [2115]

If you sit there and worry about what he is trying to drive at, instead of trying to think about the truth of your answer, then you certainly are going to be crossed up. Now, sit back and relax and answer the question and don't answer questions until you know what you are asked.

The Witness: Ask your question again, now.

Mr. L. E. Lyon: I merely ask you one question: Is Plaintiff's Exhibit 40 a fair replica of what was being manufactured and offered for sale by the Weatherford Spring Company from Weatherford, Texas, in July, 1941?

Mr. Scofield: I object to that, your Honor, unless counsel indicates what "fair" means. Now, if it is a replica, it is one thing.

The Court: If he doesn't understand what it means, he can say so.

Mr. Scofield: All right.

The Witness: Your Honor, I can put interpretations on it of my own. It is just like someone asking me if you and Mr. Lyon look exactly alike.

The Court: You don't need to go into all that. Now, it is either one of your scratchers or it isn't

a scratcher of yours, or it is almost like one or it is not almost like one.

Mr. Scofield: That is it.

The Court: Now, which is it? [2116]

A. All right. It is almost like the scratcher made back at that time.

The Court: Very well.

Mr. L. E. Lyon: All right.

Q. Now, in what way does it differ from the scratcher that was made in July, 1941, and offered for sale by the Weatherford Spring Company at Weatherford, Texas.

A. You are attempting to pin me down to a certain month.

The Court: No. Just answer the question. You said it was almost like it. Now, wherein is it not like it? That is the question.

A. The two earlier types of scratchers that I have seen, that I will say was made on or about July of 1941, were, No. 1, some of them had springs which—we have an exhibit like this, but I can—

The Court: Where is the exhibit? We will find it. Where is it? That will be the short answer.

Mr. L. E. Lyon: Yes, let us see if there is one you say is like it. That is all I am trying to find out.

The Witness: It is not here that I can see. There was one in the—I will go ahead and explain it.

The Court: Can you produce one that is?

The Witness: It certainly is not like this one that you concocted. [2117]

The Court: Now, by "this" what are you referring to, what exhibit?

The Witness: I am referring to Exhibit CD-1.

Mr. L. E. Lyon: That is merely in here for identification, at the present time, your Honor.

The Witness: I will use this one in explaining my answer.

The Court: By "this one" you refer to Exhibit—

Mr. L. E. Lyon: May it be stipulated, Mr. Scofield, that this Exhibit No. 40 was offered by you as a precise replica of what was manufactured by the Weatherford Spring Company?

Mr. Scofield: I think the one I offered at the public use proceeding is now in the Patent Office.

Mr. L. E. Lyon: No. I say in this case, not in the Patent Office. On the 25th of May, 1949, you offered it in evidence. Didn't you offer it in evidence at that time as an exact replica of what they manufactured?

Mr. Scofield: I offered the exhibit which the witness has, which is CD, is it?

Mr. L. E. Lyon: No. It is Exhibit 40.

Mr. Scofield: ——Exhibit 40, as Weatherford Spring scratcher. I don't recall the date of manufacture. It certainly was not in 1941.

The Witness: Shall I go ahead?

Mr. L. E. Lyon: Go ahead. I would like to get it fixed [2118] if it is possible.

The Witness: The early scratchers, I will deal with the——

Mr. L. E. Lyon: Give me the record of May 25, 1949.

The Court: Don't we have all the scratchers that Hall has ever manufactured here, replicas or samples of them?

The Witness: I didn't find one.

The Court: I am not asking you that question. I am asking your counsel.

Mr. Scofield: I don't believe there is in this case, your Honor, a half scratcher.

The Court: No one is asking about a half scratcher.

Mr. Scofield: Yes, the half scratchers were made in 1941.

The Court: It may have been. Is this question directed to a half scratcher, Mr. Lyon?

Mr. L. E. Lyon: No, your Honor. This is directed to what they were manufacturing and offering for sale, and it is not my understanding that they offered for sale a half scratcher in 1941.

Mr. Scofield: Yes, in 1941 is when the half scratchers were made and they were made in Weatherford and Mr. Lyon in the public use proceeding will recall that there were photographs of the half scratchers welded into a full type scratcher, that is the complete round scratcher.

The Court: Don't you have physical specimens of all [2119] those things some place?

Mr. Scofield: I do not have the half scratcher. That is in the Patent Office. That went to the Patent Office. I have a photograph.

The Court: Do you mean that they are so scarce that you just have one of them?

Mr. Scofield: Yes, sir, that is right.

Mr. L. E. Lyon: In 1949, on May 25th, this scratcher was offered in evidence by Mr. Scofield with the following statement, contained on page 69 of the record:

"I offer as a physical exhibit the Weatherford Spring scratcher which I used in the opening this morning, and it exemplifies the structure which is shown in Plaintiff's Exhibits 4 and 5. That is offered as Plaintiff's Exhibit No. 40."

And that is where that particular scratcher came from and it was offered as an exemplar of the Weatherford Spring Company scratcher.

Mr. Scofield: Of course it is the Weatherford scratcher.

Mr. L. E. Lyon: Well, "Weatherford" does not mean anything.

The Court: If you had gotten up about 20 or 30 minutes ago and offered to stipulate that it was, it would have saved a great deal of time. This witness is up here struggling with whether to say it was or wasn't or almost like one. [2120] He has never yet said it was a Weatherford Company scratcher.

Mr. Scofield: What he is troubling about is the question as to whether or not that scratcher is a replica of the scratcher that was made in 1941. Now, if that isn't a replica of the scratcher that was made in 1941, it functions exactly the same, but insofar as it being a replica it is not a replica.

The Court: Well, do you have one of the scratchers which was made in 1941?

Mr. Scofield: No, sir.

The Witness: We have a photograph.

Mr. Scofield: It is in the Patent Office. They are in the Patent Office.

The Court: What do you mean, they are in the Patent Office?

Mr. Scofield: One-half of that scratcher was used in the public use proceedings and it went to the Patent Office as an Exhibit.

- Q. (By Mr. L. E. Lyon): Now, as I understand your testimony, then, it is that Exhibit 40 is not a precise replica of what was made in 1941, in July. Will you state wherein it differs?
- A. As to detail, yes. As to the earlier scratchers, or the scratcher of which you speak, let us say, the springs were crossed in the fashion as you see here, your Honor. In [2121] other words, those on the bottom row were crossed upwardly; those on the top row were crossed downwardly; and then, of course, it was with the springs on the same rib, there were two springs upon that rib, they were crossed. This——
- Q. (By Mr. L. E. Lyon): What is "this"? The Witness: Just a moment. Let me look here. This light is——

(The witness holds said scratcher close to the light.)

The springs also in that scratcher were of threeinch bristles or thereabouts, a little over or a little below. Now, that is a distance from here to out here. (Indicating.)

The Court: The distance from the collar to the end?

The Witness: No. It is not necessarily the distance from the collar to the end.

The distance from the spring out. There are three inches or approximately and sometime, a little later, in 1941, as I recall, they came out with some bristles that were shorter, about an inch and a half or thereabouts, and there were a few scratchers made in 1941 that looked very similar to this with the [2122] spring.

The Court: Exhibit 40?

The Witness: That is correct. Those were made, I am sure, past July, because I received some in. I believe, October or November of 1941.

- Q. (By Mr. L. E. Lyon): Where?
- A. At Bakersfield. Some were sent to me.
- Q. Were those scratchers that you received in October or November like Exhibit 40?
- A. Some of them were similar. The paint was glossy. Some of those that I received were also split scratchers, where we had an ear on one side—on each side so that you could open the scratcher up.

Mr. Scofield: If it would facilitate the examination, plaintiffs are ready to stipulate that the scratchers manufactured in July of 1941 are shown in Defendant's Exhibit A; that is the advertisement

that Weatherford Spring put in The Oil Weekly at that time.

Mr. L. E. Lyon: As to one form.

The Witness: May I see Exhibit A here?

Mr. L. E. Lyon: As to one form I will accept that stipulation.

The Court: As to one form of?

Mr. L. E. Lyon: A scratcher that was then manufactured. I will accept that stipulation, as shown in the July 7, 1941, Oil Weekly, Defendant's Exhibit A. [2123]

The Court: Do you have the exhibit there?

The Clerk: Yes, sir.

Mr. Scofield: We could also stipulate, your Honor, that as to another form, the Exhibit B, the advertisement of September 11th, shows a Weatherford scratcher of the type that was made at that time.

Mr. L. E. Lyon: I accept that stipulation also.

Q. Now were these scratchers of the type that you received in Bakersfield in October or November of 1941 sold to the trade at that time?

The Witness: What was your question?
Mr. L. E. Lyon: Read the question, please.

(Question read by the reporter.)

A. You mean were we offering them for sale? We were offering them for sale.

Q. Did you sell them?

A. And did we sell them?

Q. Yes. A. I presume we did.

- Q. Well, you know whether you did or not. You were the one who was selling them.
- A. My dad was selling them, too. I had a little tough time there at first because our competition here was claiming they had patents on them, every patent that existed.
- Q. You offered those for sale and those [2124] scratchers had a particular method of operation, I believe, did they not? I am not asking you what it is. But they did have, in your opinion and in your assertion, a particular mode of operation?
- A. You are covering a lot of territory, because the use of a scratcher covers a very broad field.
- Q. It is your opinion that, as you were offering them for sale and selling them, they had a—
- A. For whatever purpose a scratcher was used for we offered them for sale.
- Q. All right. And in a well they had a particular method of operation when they were mounted to rotate on the pipe, didn't they?
 - A. Mounted to rotate? Let's say-
 - Q. Just answer the question, please.
- A. ——they had a particular function when they were reciprocated, when they were mounted freely on the pipe.
 - Q. And reciprocated?
 - A. And reciprocated.
- Q. Now, I place before you a letter which is in evidence as Exhibit 194 and will ask you if you wrote that letter? It is in three pages, Exhibits 194, 195, and 196, and ask you if that is your signature?

The Court: A single letter in three exhibits?

Mr. L. E. Lyon: Yes, your Honor. Unfortunately all [2125] three pages of it were so marked when they were produced in accordance with my demand.

Maybe your counsel will stipulate that they were written by you.

- A. On June 2nd, 1945, dated to Weatherford, Texas, addressed to Mr. Thomas E. Scofield, 2600 Fidelity Building, Kansas City, Missouri, and signed "John A. Hall" in my own signature. This is Exhibits 194, 195, 196, the third page bearing my signature. I haven't read it but I presume it is my letter.
- Q. I don't want any presumptions. I want your answer yes or no, or that your counsel stipulate whether you did or did not write the letter, Exhibits 194, 195 and 196. [2126]

Q. (By Mr. L. E. Lyon): You have had an opportunity since the recess to read, as directed by the court, Exhibits 194, 195, and 196, which is a letter of June 2, 1945, written to Mr. Thomas E. Scofield, and, as you have testified, the third page of that is signed by you, and did you write that letter?

A. Yes, I wrote the letter.

The Court: Mr. Scofield, I think that we can meet your objection probably by having the clerk just staple the three exhibits together. Then, whenever anyone handles one, he will handle all. They won't be separated.

Mr. Scofield: Yes, I think that would be preferable to handling three pages separately.

- Q. (By Mr. L. E. Lyon): Now, this letter was written, as you state on its first page, at the request of Mr. Hall, Sr. Why was it written?
- A. It was written to give Mr. Scofield an explanation of the action of the sidewise bristle in reversing.
- Q. That was the same action, however, that had been going on and had been observed by you in 1941 of the same scratchers, wasn't it? [2130]
 - A. It was.
- Q. In other words, in 1945, when you wrote this letter, Exhibits 194, 195, and 196, there wasn't anything new or different about what was happening?

 A. No, there wasn't. There was not.
- Q. Now, this action that you have stated, as explained in Exhibits 194, 195, and 196, was the same action that you observed of the type of scratcher as shown in Exhibit B, that is the advertisement of September 11, 1941, of the Weatherford Spring Company, was it not?

 A. It was identical.
- Q. And there was no different operation performed at all by the scratcher shown in Exhibit A, that is the July 7, 1941, Oil Weekly ad. was there?
 - A. There was no difference. [2131]
- Q. Mr. Hall, at one of the petroleum exhibitions or exhibits or conventions Weatherford Spring Company distributed a catalogue. Was that catalogue Exhibit L, copy of which I hand you?

- A. I can see nothing in this catalogue that will indicate that it was printed for distribution there or that it was distributed there.
- Q. Well, I am asking you a question: Was it or was it not distributed at such a petroleum exhibition, not whether it was printed for it. I am asking you was it distributed at such an exhibition?
 - A. What exhibition, what year?
 - Q. In 1947. A. Where?
 - Q. I believe it was in Oklahoma.
- A. I will put it this way: If it was out in time and was there in our booth, we distributed it.
- Q. You were there at that 1947 convention in Oklahoma, were you not?

 A. I was.
- Q. And you distributed a catalogue at that exhibition, did you not?

 A. I feel sure we did.
- Q. Now, is this the one that you distributed there, and by "this" I mean Exhibit L? [2132]
 - A. I believe that it very probably was.
- Q. All right. In that catalogue, on the front face of page 2 there is a picture of a scratcher. Does that scratcher differ in any way from Exhibit 40 which we had here yesterday? I will place Exhibit 40 back in your hands again.
- A. In the scratcher shown in Exhibit L, on the first page of the inside leaf——
 - Q. The page is numbered 2.
- A. The page is numbered 2, yes—it shows that the springs were canted; it shows that there is probably five-inch bristles, what was labeled as five-inch bristles; it shows the scratchers were put in with

rivets. It may be possible, it is probable, that the springs are made individually. By that I mean there is one coil to a spring, then an eye, and that there are two eyes on the rivets.

In this scratcher here there are two eyes shown there. I would say that the two scratchers are almost identical. I can't tell as to size, of course. One may have been a five and one-half or a five and three-quarter, and this is obviously a seven-inch scratcher. I mean the one shown in the picture.

The Court: By "this" referring to Exhibit 40? The Witness: Yes, Exhibit 40, sir.

The Court: Is the seven-inch scratcher?

The Witness: Yes. [2133]

- Q. (By Mr. L. E. Lyon): When you circulated that catalogue with the picture that is on page 2, with the notation under it "Patent No. 2,374,317" on page 2, did you receive inquiries from the trade as to what that patent marking meant?
- A. I don't recall that we did. We may possibly have received one from Gulf but I am not sure. If there are inquiries, they would most certainly have been of record, and if you will put them before me I will attempt to recall about the inquiries.
- Q. I am asking you if there were such inquiries. You do not recall any, is that correct?
- A. I don't recall any specific inquiries as to that question at this moment. Why don't you place a time on it, on what you have said now?
 - Q. I am talking about the year 1947 right now.

That was the time that this particular contract, Exhibit L, was being distributed, was it not?

- A. Contract?
- Q. Catalogue, catalogue Exhibit L.
- A. It surely was. We most certainly had discussions in that year with various companies as to whether or not we had a license from you people.
- Q. That is, throughout that year you had many discussions with customers with respect to your claim that you were [2134] operating under the patent No. 2.374,317 in the sale of the scratchers of the form in Exhibit 40, did you not?
 - A. That is very correct. You boys were—
- Q. And you told them at all times "We are operating under that patent," didn't you?
- A. In any case we told them that we were operating under such privileges as were granted us through that patent out of a settlement [2135] agreement.
- Q. (By Mr. L. E. Lyon): Now, was there any reason that you know of why in the catalog, Exhibit L, you didn't put under that picture on page 2 the words "Licensed under" instead of writing the patent number the same as the patent numbers written under the centralizer on the same page, to indicate that those were the Weatherford Spring Company patents?

 A. Now, state that over.
- Q. I say that you note that in Exhibit L, on page 2 in the upper left-hand corner, there is a picture of a spiral centralizer, and under that pic-

ture there are "Patents 2,220,237 and 2,258,052," all in parentheses. That indicates that Weatherford Spring Company owned those patents, does it not?

A. It does not necessarily indicate that they own them.

Q. It doesn't?

A. It doesn't say one way or the other. It indicates to me a privilege to manufacture under the particular patents shown.

Q. I see. Now, then, under the scratcher like Exhibit 40, which is the red picture of a scratcher in the background, there is just the word "Patent"—"Pat. No. 2,374,317" in parentheses. Now, did that indicate ownership of that patent by the Weatherford Spring Company?

A. It indicated the privilege to use that patent number [2136] for whatever purpose it was to be used for.

Q. Now, was there any reason in formulating this catalog, Exhibit L, for not showing a differentiation between these two patent markings that I have pointed out, that you recall?

A. I could see none.

Q. You do not recall any reason or any consideration given to not differentiate between those two patents when the catalog was formulated?

A. No, because I know that your boys did not invent this scratcher and that it was a settlement agreement.

Q. You know, then, it is your statement, Mr. Hall, that when you published this catalog, Exhibit

L, and distributed it to the trade, you knew then, according to your last statement, that the scratcher that is shown in that figure was not covered by that patent which is marked under the picture, is that correct?

Mr. Scofield: If your Honor please, I object to this examination. It is entirely outside the scope of the direct examination. Furthermore, I don't see any purpose at all in questions to this witness in regard to this catalog. It has not been shown that he had anything to do with the publication of the catalog. As to what these notations may mean in the catalog, I can't see that that has anything that is pertinent.

The Court: Is it in evidence that this witness had anything to do with its publication? [2137]

Mr. L. E. Lyon: I would not be able to recall, your Honor, from the standpoint of the witness' testimony at four different times. I believe that he has testified with regard to this catalog. That is my belief.

The Court: Hadn't you better cover that and show the facts?

Mr. L. E. Lyon: I have that he distributed it personally at this show in 1947, this particular catalog, your Honor.

The Court: Your question assumes that he had some part in the publication, so I suggest that you phrase it so it will not assume facts not in evidence.

Q. (By Mr. L. E. Lyon): You were with

Weatherford Spring Company in 1946 and 1947, were you not?

A. I was.

- Q. In fact, you were working quite closely with your father in the distribution and sale of scratchers and centralizers at that time?

 A. I was.
- Q. And were working quite closely with him in the operation of the Weatherford Spring Company?
 - A. I was.
- Q. And you worked with him in the preparation of written material for publication, didn't you?
 - A. I worked with him to some extent. [2138]
- Q. And you worked with him in the preparation of the advertising material in catalogues, didn't you?

 A. I did.
- Q. And you worked with him in the preparation of this particular catalog, Exhibit L, didn't you?

A. I did.

Mr. L. E. Lyon: I ask that the previous question be read to the witness, the one that was not answered.

The Court: I suggest that you reframe it.

- Q. (By Mr. L. E. Lyon): Well, the question was that when you distributed this catalog—and I mean by "you" personally and the Weatherford Spring Company, and by "this catalog" I mean Exhibit L—it is your position that you knew at that time that the scratcher like Exhibit 40 was not covered by the Patent No. 2,374,317?
 - A. Now, wait a minute. State that over.

Mr. Scofield: I object to that. It asks for a legal conclusion.

The Court: Objection overruled. It is asking him for a state of mind, as I understand the question.

Mr. L. E. Lyon: That is correct.

The Court: What he knew or what he believed.

Mr. L. E. Lyon: Read the question.

The Court: Please read the question to the witness.

(Pending question read.) [2139]

The Court: The question is what the witness himself knew.

Mr. L. E. Lyon: That is correct.

A. I did not know any such thing.

Q. (By Mr. L. E Lyon): Well, was it your belief at that time that the scratcher like Exhibit 40 was not covered by the Wright Patent No. 2,374.317?

A. It was my belief that we were operating under certain privileges granted us under that patent number.

Q. Well, now, just answer the question, please.

A. I have answered it. Whatever privileges came out of that number, it was my belief that we were operating under those privileges, if we used them.

Q. Well, all right. Now, at the time that you distributed this catalog, Exhibit L, in 1947—and I mean you and the Weatherford Spring Company—was it your belief at the time that you printed this catalog, Exhibit L, that the Patent No. 2,374.317

was invalid and did not cover your scratcher of Exhibit 40?

Mr. Scofield: I object to that, your Honor. This witness isn't qualified.

The Court: It is compound, too. Do you mean to ask him if he believed that the patent was not valid?

Mr. L. E. Lyon: Yes, your Honor.

The Court: You may answer that [2140] question.

The Witness: If I believed that the patent was not valid?

The Court: That is my understanding of it.

Is that the question, Mr. Lyon?

Mr. L. E. Lyon: Yes, your Honor.

- A. That legal conclusion did not enter my mind at that time, I don't believe, sir.
- Q. (By Mr. L. E. Lyon): Did you believe at the time of the publication of this Exhibit L that the scratcher of Exhibit 40 was not covered by the Wright Patent No. 2,374,317?
 - A. The scratcher as it sits here in the air-
 - Q. Now, you are waving Exhibit 40.
- A. That is correct—is not the complete tool as I see it. It takes the scratcher to be on the pipe.
 - Q. Just answer.
- A. Now, then, there is the manner in which the scratcher is put on the pipe. If it is put on, soldered on the pipe, welded directly to the pipe, that is one thing. If it is loose on the pipe between lugs, that is another thing. Both methods to me are patentable methods. As I saw your patent, your

scratcher was connected directly to the pipe, and many times I had seen them welded directly to the casing, and should anyone weld any of our scratchers directly to the casing, that most assuredly, I felt, would be coming under that patent. [2141]

* * *

Q. (By Mr. Lyon): In this photograph that is in the background, with the red scratcher in it, is it your statement that you intended to indicate that that scratcher in that photograph was welded to the pipe?

A. Mr. Lyon, you know that no pipe is shown there.

Q. And there isn't any indication, anywhere in that catalog, of any welding in connection with Patent No. 2,374,317?

A. I have not read this catalog just now, Mr. Lyon. [2142]

A. I haven't read this catalogue just now. However, I know that in some previous catalogue there was mention of it and in later catalogues there was mention of it. I knew also that people would invariably install scratchers on the pipe by welding them if you weren't there, and I wanted—that is enough.

Q. (By Mr. L. E. Lyon): Let us go back and see if we can get an answer to this question that you have not answered.

A. Now, what question is that?

Q. And that is what you thought or what you had in mind, if anything, as to whether the scratcher first shown in the photograph on page 2 of Exhibit L was or was not covered by the patent which is numbered under the picture?

A. The scratcher as shown, the centralizer shown, means they are in this catalogue for one reason and one reason alone, and that is that they shall be used on the pipe, be sold to be used on the pipe in some fashion or other. Therefore, with that conclusion, the scratcher is absolutely useless. You might use it as a flower pot or something like that, but it is absolutely useless unless it is on some device for which it may be used. And that is the way I look at this cratcher or this centralizer or any other tool that is used for any purpose.

And with that conclusion, its use, or that scratcher when used for whatever purpose that that patent was intended [2143] for. I mean the coverage there covered it.

- Q. All right. Now I will hand you Exhibit FFF.
- Q. (By Mr. L. E. Lyon): Here is another catalogue, Mr. John Hall, and I will ask you if you also aided in the preparation of this catalogue, and this catalogue is Exhibit FFF?
 - A. I certainly did.
- Q. Now, this catalogue was published before or after Exhibit L?
- A. The catalogue was published after Exhibit L, as I recall.

The Court: Exhibit FFF-1 I asked the clerk to place there before you, I think. Is that a page out of the catalogue Exhibit FFF?

Mr. L. E. Lyon: That is a page out of the catalogue Exhibit L, I believe, your Honor.

The Witness: This is out of the Oil Weekly, sir, and it [2144] is a front page. Apparently this catalogue was printed in the Oil Weekly.

The Court: FFF-1?

The Witness: Yes. The entire catalogue was printed in the Oil Weekly and then also printed separately.

The Court: Very well. I should not have interrupted. Your attention is being directed to FFF.

The Witness: That is all right.

The Court: I thought perhaps FFF-1 might have been overlooked.

The Witness: Was your question—

- Q. (By Mr. L. E. Lyon): This catalogue was published and distributed at the Tulsa Oil Show held in Tulsa, Oklahoma, during May of 1948; and was distributed by you and the Weatherford Spring Company at that oil show, was it not?
 - A. May, 1948?
 - Q. Yes.
- A. Now, you have testified that there was an oil show—
 - Q. I have not testified.
 - Λ. ——in 1947 and one in '48.
 - Q. Yes.
 - A. Do you know that to be a fact?

- Q. I haven't testified to anything. I asked you a question.
- A. Maybe you better find out the dates of these oil [2145] shows.

The Court: The question is: Do you remember such an oil show?

Q. (By Mr. L. E. Lyon): In May of 1948 at Tulsa, Oklahoma?

The Court: If you do not remember—

A. I don't recall one being held. I don't recall any being held a year apart.

The Court: Do you recall one being held in 1948 at Tulsa?

The Witness: I recall one being held in either 1947 or 1948.

The Court: At Tulsa? The Witness: Yes, sir.

- Q. (By Mr. L. E. Lyon): If one was held in 1948, as you have just testified, was this Exhibit FFF distributed at that show?
- A. Now, let's say that the catalogue was distributed.
 - Q. Well, just answer the question.
 - A. You are trying to trick me into something.
 - Q. No, I am not trying to trick you.
- A. There is a date as to these oil shows. Why don't you produce them and I will testify that whatever catalogue that we were using at that time, that we had those catalogues at that oil show. [2146]

Mr. L. E. Lyon: All right.

Mr. Scofield: Maybe we can stipulate, your

Honor, as to what years the oil shows at Tulsa were held. I don't know.

The Witness: As if the oil shows made any difference.

Mr. Scofield: I don't know what year it was. Maybe Mr. Lyon has that information.

Mr. L. E. Lyon: I am asking the witness if this catalogue was distributed by him at an oil show held in Tulsa in May of 1948.

The Court: He says he does not remember whether there was such a show.

Mr. L. E. Lyon: Well, I thought in answer to your Honor's question he thought probably there was one that year.

The Court: That was not my understanding. If you can stipulate that an oil show was held in Tulsa in May of 1948, he may answer.

Mr. L. E. Lyon: I will so stipulate. I will so stipulate that there was one held in May of 1948 at Tulsa. The oil show was held there in May of 1948.

The Witness: Will you stipulate that one was held——

The Court: Just a moment. You stay out of this. You are the witness, Mr. Hall.

The Witness: All right. Excuse me.

The Court: You just answer the question, unless you do not feel you understand the question. If you understand the [2147] question, you may answer it.

Will you so stipulate, Mr. Scofield?

Mr. Scofield: Yes, sir; I will stipulate that they held one in 1948.

The Court: May of 1948, in Tulsa, Oklahoma.

The Witness: Yes, this catalogue was shown there. In 1947 there was no oil show there then.

- Q. (By Mr. L. E. Lyon): Now, this catalogue you refer to is Exhibit FFF, is that correct?
- A. Yes. I think we ought to correct the other testimony, if I said that it was shown in 1947 at the oil show. There was no oil show there.
- Q. If there was no oil show there, it can stand no correction.
- A. You were attempting to put it into me that there was.
- Mr. L. E. Lyon: I was not attempting to put anything.

The Court: Proceed, gentlemen. Drop all this colloquy. If you will just answer the questions, Mr. Hall, Mr. Lyon will just ask them.

- Q. (By Mr. L. E. Lyon): About this time of this oil show in 1948 did you receive any inquiry from the trade with respect to your marking in your catalogue of the Wright patent No. 2,374,317 under your structures as exemplified by Plaintiff's Exhibit 40? [2148]
- A. I don't recall of any such inquiry at the oil show.
- Q. Did you receive any such inquiry at any time during the year?

 A. I am sure that we did.
 - Q. Were those inquiries in writing?
- A. I don't know that they were in writing. They were most assuredly made verbally.
 - Q. Isn't it a fact, Mr. Hall, that throughout

these two years of 1947 and 1948 that you received from the oil companies many, many inquiries with respect to your marking of this patent number under the picture of your scratcher as exemplified by Exhibit 40 and shown by both these catalogues, Exhibit L and Exhibit FFF?

- A. What does your term "many, many," include?
- Q. Would it include almost all of your customers, almost all of the oil company customers?
 - A. Oh, I doubt that is correct.
- Q. Well, would it have been 50 per cent of them 9
- A. I think that—it would include an awful lot of customers. Whether it was 50 per cent or not I wouldn't say. I wouldn't go to that figure. It may have been more, it may have been less, but it was a lot of customers.
- Q. It was an awful lot of customers is the way you would put it, is that right? [2149]
- A. There were a lot of customers that you people were going to——
- Q. Well, just answer my question. Don't volunteer something. There was an awful lot of customers.

The Witness: Read me the question now.

Q. I said it was an awful lot of customers.

The Witness: No. no, your previous question.

Q. All right. My previous question was the same question: It was an awful lot of customers.

The Witness: Well, your previous one.

Mr. L. E. Lyon: The reporter will read you any question you want.

The Court: Put another question, Mr. Lyon. He has answered that. He said, "An awful lot of customers," didn't he? There is no point in having him repeat it.

Mr. L. E. Lyon: No, none whatsoever if it is the understanding that he so testified.

Q. You have testified that you aided in the preparation of the advertising literature of the Weatherford Spring Company. I will place before you an advertisement that appeared in the August, 1948, issue of The World Oil, of the Weatherford Spring Company, which is Exhibit BC.

I had better have Exhibit BC to be sure that that numbering is correct.

Your Honor, I think it would be advisable, in view of [2150] the torn and perhaps unreadable condition of BC, to substitute a black on white photostat for the other one, this one being torn on the side, and this one the tearing being replaced so it is readable.

Will you stipulate that that substitution can be made?

Mr. Scofield: Yes, that is correct.

The Court: Very well.

Q. (By Mr. L. E. Lyon): I place before you Exhibit BC and will ask you if you aided your father in the preparation of that advertisement while you were with the Weatherford Spring Company?

- A. I had nothing to do with this, with the preparation of this ad.
 - Q. You had nothing whatsoever to do with it? A. No.
- Q. I place before you a Weatherford Spring Company catalogue which is Exhibit—maybe it is 4. There is a duplication there of 4.

The Clerk: 4 is a catalogue.

- Q. (By Mr. L. E. Lyon): Exhibit 4 and ask you if you had anything to do with the preparation or distribution of that catalogue?
- A. I did. I collaborated in the preparation of it. Mr. Scofield: Your Honor, I don't believe that that is Exhibit 4. I think that is Exhibit NN. Let's see the [2151] front page of it. I beg your pardon. That is Exhibit 4. That is Exhibit 4.
- Mr. R. F. Lyon: I have also a note here that that is Exhibit 43. I wonder if we could get 43 out, too?

The Clerk: No, sir, you can't. I don't have any 43. I have never been able to find 43 since the case started.

Mr. L. E. Lyon: 43 was never offered in evidence. It was apparently the same catalogue.

The Court: May it be stipulated Exhibit 43 for identification, as appears in the record, referred to a document which is identical with Exhibit 4 in evidence?

Mr. Scofield: Yes, sir. Exhibit 4— The Court: So stipulated, Mr. Lyon?

Mr. L. E. Lyon: Yes, your Honor. There is no 43 in evidence. 43 for identification is Exhibit 4.

The Court: In evidence?

Mr. L. E. Lyon: In evidence.

The Court: Very well.

Q. (By Mr. L. E. Lyon): Was this Exhibit 4, the catalogue of the Weatherford Spring Company that was distributed prior to the distribution of the catalogue Exhibit L?

A Let's see catalogue Exhibit L. It is the one with the white background, isn't it? Yes, this is the one that was distributed prior.

- Q. And up to and immediately prior to the distribution [2152] of Exhibit L and for some matter of a year or two preceding that, the only catalogue used by the Weatherford Spring Company was Exhibit 4, was it not?

 A. That is correct.
- Q. And this catalogue, Exhibit 4, actually was brought from Weatherford, Texas, or copies of it, by you in October of 1944, when you came out in a car with those copies in the back, isn't it?

A. That I don't recall.

Q. Well, you do recall coming from Weatherford, Texas, to Long Beach or to Los Angeles in October of 1944. Do you recall handing copies of that catalogue when you arrived here from Weatherford, Texas, to Roland Smith in October of 1944?

A. If I handed them to him, I certainly handed them to him. I am not denying any date of publication. As far as if I carried them with me or if they were in my briefcase, they were in the briefcase.

They may have been in the back of the car. I don't know.

- Q. If you have no recollection—
- A. I don't recall whether they were in the back of the car or not.
- Q. If you have no recollection of bringing the catalogues out from Weatherford, Texas, to Los Angeles in October of 1944, just say so. [2153]
- A. I don't have any specific recollection at this moment.
- Q. All right. Mr. Hall, in 1949 you carried around with you on a piece of paper in your briefcase copies of certain claims which you showed to people. Do you recall that?

 A. I do.
 - Q. What claims were those?
- A. Whatever claims that were allowed us at that time.
- Q. And to whom did you show those claims in 1949?
- A. I showed them to whoever asked us if we had a license, had an agreement with B & W.
- Q. Did you show those claims to Mr. Edwards connected with the Union Producing Company?
 - A. I surely did.
 - Q. About June 22 of 1949?
- A. I did. He asked me if he could take a look at them.
 - Q. How did he know about them?
- A. I don't know. He was your lawyer at that time. I mean your representative.
 - Q. How did he know about them? How did he

know about those claims if you didn't tell him about them.

A. Mr. Barkis had apparently——

The Court: The question is: Did you tell him about [2154] them?

The Witness: Oh. You mean how did he know about the claims that I had?

Mr. L. E. Lyon: Yes.

The Court: You cannot know how he knew. The question is: Did you tell him about them? That is the question.

- A. Yes, I told him that I had—he asked me if we had claims and I said, "Yes," we had some claims that were allowed.
- Q. (By Mr. L. E. Lyon): And then you showed him the claims? A. I did.
 - Q. Did you tell anyone else about those claims?
- A. Now, what do you mean "anyone else about those claims"?
- Q. Well, did you describe the claims to him, tell him that they covered this or they covered that?
- A. I didn't need to describe them. He read them and handed them back to me.
- Q. Did you tell him those claims covered any structure manufactured and sold by B & W?
 - A. I don't specifically recall that I did. [2155]
 - Q. You wouldn't say that you didn't?
 - A. I wouldn't say that I didn't.
- Q. Now, to how many other people connected with the oil companies during the year 1949 did you show those identical claims?

- A. That is something that I just don't recall. I probably showed them to several.
 - Q. What do you mean by "several"?
 - A. Well, I mean several.
- Q. Well, was it 15, 20? You were calling on the trade generally at that time, weren't you?
 - A. I was calling on the trade generally.
- Q. Was there anybody that you called on that you didn't show it to?

 A. Why, certainly.
 - Q. How many?
- A. Probably most of the people that I called on, I didn't show them to.
 - Q. All right. Then how many did you show it to?
 - A. I don't recall.
 - Q. Well, was it a matter of 10, 15, 20?
 - A. Mr. Lyon, I do not recall.
- Mr. Scofield: I think the question has already been answered, your Honor. He said he does not recall. I object to it. [2156]
- Q. (By Mr. L. E. Lyon): Now, have you a copy of the claims that you were showing to the trade as you have testified, which you showed to several people in 1949?
- A. I don't have a copy. Whatever claims that were allowed then and that were furnished me at that time, furnished us at that time by Mr. Scofield, those were the claims that were shown.
- Mr. L. E. Lyon: May I make request at this time, of Mr. Scofield, that he supply us with a copy of the claims that he gave to this witness?

The Witnes: Not to "this witness." To our office.

Mr. L. E. Lyon: Or to Weatherford Spring Company, in 1949, and which the witness used as he has testified.

Mr. Scofield: If any of those claims were allowed at the time that the witness is referring to, they are now in evidence in the exhibit of No. 627,013, which is Exhibit K, I believe.

Q. (By Mr. L. E. Lyon): Were these claims set forth in a letter written to the Weatherford Spring Company by Mr. Scofield?

A. That I don't recall.

Mr. L. E. Lyon: Well, I will still ask that the copy of the claims that was supplied by you to this witness and used by him as testified be produced. Mr. Scofield.

Mr. Scofield: Well, I have no recollection of sending [2157] any claims to this witness or to any one of the Weatherford Spring Company. If there is any such letter, I will produce it.

Mr. L. E. Lyon: Is it my understanding that you take the position that you didn't send any such claims to him as he is testifying?

The Witness: I haven't testified—

The Court: Just a moment. You stay out of this until you are asked questions.

The Witness: I am sorry.

Mr. Scofield: I have no recollection of that letter, your Honor.

The Court: I hope I do not have to caution you about that again.

The Witness: I am sorry.

Mr. Scofield: I have no recollection of that letter, your Honor.

The Court: Do you have your file of correspondence here?

Mr. Scofield: Yes, I think I have the file. It would be, of course, in the file of this case, and I have that file, but I haven't it here in court.

The Court: Can you make a search—

Mr. Scofield: Yes, sir.

The Court: ——to see if such a letter was sent? Now, I understand you will do so and you will report [2158] later in the day about it?

Mr. Scofield: Well, I may not be able to do it at the noon hour, but I will certainly do it tomorrow morning.

The Court: Very well.

Mr. L. E. Lyon: If I stated in questioning a minute ago the "Weatherford Spring Company," your Honor, with respect to 1949, may it be understood that we were referring to the Weatherford Oil Tool Company and not to the Weatherford Spring Company?

May that be understood, Mr. Scofield.

Mr. Scofield: It will be understood.

The Court: Did you so understand it, Mr. Hall? The Witness: Yes, I so understood it.

Mr. L. E. Lyon: May I have Exhibit FFF?

Q. I place before you Exhibit FFF, and refer to page 11 of Exhibit FFF, and will ask you if you

personally weighed the scratchers, the centralizers, and tabulated the weights for use in this catalog as shown on page 11 of Exhibit FFF.

- A. It is probable that most of these weight figures are from the previous catalog, which figures were obtained by Roland Smith and I.
 - Q. From actual weight of the structures?
 - A. No.
- Q. Didn't you weigh the structures out in the shop?
- A. In some cases we would get a heavy collar and get [2159] the heaviest springs that we had there, and weigh the collars—
 - Q. Now, answer.
- A. Now, wait a minute—and weigh the collars and the springs together. That is the way we would get the weights.

Now, all the sizes were there, and consequently, as I recall, we were doing this on a Saturday or on a Sunday—

- Q. I am not limiting that to scratchers or to centralizers. This table on page 11 includes the weights of scratchers. Now, did you actually weigh the scratchers?
- A. No. We did not. There were some scratchers that we weighed. There were others—and I am referring to when Roland and I arranged the weight figures—that weren't even made, that we had arrived at a calculation on.
 - Q. All right. Now, a 7-inch and a 51/2-inch both

were pretty common sizes at that time, weren't they?

Mr. Scofield: Objected to.

Mr. L. E. Lyon: They both were made?

Mr. Scofield: Objected to as indefinite, unless you specify with reference to a 5½-inch or a 7-inch scratcher or centralizer.

- Q. (By Mr. L. E. Lyon): Both scratchers and centralizers?
 - A. Yes, they were both commonly made.
 - Q. And they were the most common sizes?
 - A. That is correct. [2160]
 - Q. And they were in existence?
 - A. There were those sizes in existence, yes.
- Q. And the sizes of the structures that were in existence, you weighed, didn't you?
- A. Yes, we did, we weighed those in existence, but not necessarily was that figure put down in that catalog.
- Q. You mean you weighed them and put down some other figure in the catalog?
 - A. Yes, we did. Yes.
 - Q. All right. What did they weigh?
- A. I don't recall just at this time what they did weigh. We weighed the heaviest, we figured out the heaviest weights so that in making estimates we would not under-estimate the weights.
- Q. Now, you have here what you call a 7-inch reversible scratcher in the catalog, and in that column the price set forth is \$8.25, and the weight is

set forth as $2\frac{1}{2}$ pounds. Was that weight obtained by weighing the scratcher?

- A. It will be noted that there are two elements of weights.
 - Q. Just answer the question, please.
- A. There are two elements of weights, one under standard type and one under close-tolerance type, and that the weights for both scratchers are shown to be the same here. As I recall, with respect to the scratchers, we [2161] called it in quarters, to the nearest quarter of a pound, and where we weighed the scratchers, on that we called it on the high side. I cannot and will not say that we weighed the 7-inch close tolerance. It should weigh a little less, because it takes a little less material there.
- Q. Then, my understanding of your testimony is that you weighed these structures to the nearest quarter pound and took the highest nearest quarter pound as the figure that you put in this catalog?
- A. On the scratchers, yes. On the scratchers, Not on the centralizers. And that was only on those scratchers that we weighed, that we had, had to weigh,
- Q. Now, when was it, Mr. Hall, to your recollection, that you reduced in the spiral centralizer the length of bows down to 31 inches?
- A. I don't recall when the reduction was specifically, because I was out in the field selling, and the materials that I usually ran into out there, very often we had them in stock, and also materials were shipped to me from the warehouse, some of which

had been made up before, made up earlier. In other words, the material wasn't made necessarily on the day or the day before of the use of the material.

- Q. That reduction was from what, from 37 inches previously, of the length, previous length?
- A. I believe that the lengths should certainly be of [2162] record.
 - Q. Well, don't you recall?
- A. I do not specifically recall the lengths of the springs.
- Q. Now, you have been connected with the Weatherford Oil Tool Company.

I will ask to have Exhibit AZ.

I put before you Exhibit AZ—and this is a catalog which was published by the Weatherford Oil Tool Company while you were an officer of that corporation, was it not?

A. It surely was.

- Q. Did you discuss that publication and its showings prior to its publication with anyone in the Weatherford Oil Tool Company?
 - A. Oh, I am sure I did.
- Q. You aided in the preparation of this catalog, Exhibit AZ, did you? A. Yes.
- Q. Now, this catalog was published, according to the printer's notation in the flyleaf, as "GC-6-49." Does that mean that it was published in June of 1949?

 A. On or thereabouts.
- Q. Now I will refer you to page—What is the page? A. Page 4927.
- Q. —page 4927 of Exhibit AZ, and to the weight table set forth on that page, and I will call

your attention [2163] to the fact that the 7-inch spiral centralizer, as shown on that page, which was priced at \$33.00, is shown to have a weight then of 21 pounds. Did you weigh the centralizer for the preparation of this weight table?

- A. The 7-inch shows 21. I made none of these weight calculations here.
- Q. Does this reduction of about one-sixth of the weight from the previous 7-inch centralizer, in your opinion, reflect the fact of approximately one-sixth reduction in the length of the bows of the spiral centralizer?
- A. I do not know what this reduction meant because I do not know what basis the weights were figured on.
- Q. Does the fact that this 7-inch centralizer is shown to have been reduced in weight about one-sixth from that shown in the prior catalog indicate to you that this was about one-sixth shorter than the prior centralizer?
 - A. That it was about one-sixth shorter?
 - Q. Shorter.
 - A. Than the prior centralizer?
 - Q. Yes. A. It does not.
 - Q. It has no reference to it?
- A. It does not indicate to me, absolutely not, because of the way we figured the others.
- Q. There was, however, such a reduction of about six [2164] inches in the length of the bows of the centralizer somewhere between the period of the catalog, Exhibit AZ, and the publication of the catalog, Exhibit FFF, isn't that correct??

- A. In some cases there could have been more. It was probably—
 - Q. I am talking about the 7-inch.
- A. ——it was somewhere around 6 or 8 inches, or more, probably. It could have been even more than that. It may have been 12 inches.
- Q. You recall, however, the reduction to 31 inches of the 7-inch size, don't you?
 - A. On the over-all length?
 - Q. On the length of the bows.
- A. I don't recall of specifically 31 inches, no, I do not. I recall a reduction, but as to the specific reduction I do not make that recollection.
- Q. In the cementation of an oil well, using your scratchers and centralizers, either the straight or spiral type of centralizers, or using merely the scratchers alone, and where the casing is reciprocated during the time of the circulation of the rotary drilling mud and during the time of pumping the cement into place, is the casing used as a medium of carrying the oil to the surface after the well is brought in?
- A. Now, will you ask that question again, please, now? [2165]
- Q. Well, you pump, you produce through the casing, that is what I am asking you.
 - A. Ask the full question, please.
 - Mr. L. E. Lyon: All right. Read the question.

(The question referred to was read by the reporter.)

- A. At a later date, I mean after the cementation, the casing serves to hold the formation back, hold the water out, and very usually you will put—it is the general practice to run a string of tubing on the inside of that casing and then produce it to the surface through the tubing. [2166]
 - Q. And through the casing?
- A. The tubing being on the inside of the casing, yes. In other words, it goes through the tubing which is on the inside of the casing.
- Q. After cementation of the casing in the position that you have testified, the casing is perforated, is it not, by gun perforation or other method?
- A. If the easing is—if the well is not produced from an open hole, the easing is either—sections of it are either cut out, acidized out, or holes are—I mean complete sections are either cut out or acidized out or holes are put through the casing in some fashion or other, through the casing and out through the cement and out to the formation in some fashion or other to allow the oil to come on the inside of the easing.
- Q. When sections of the casing are removed as you have testified, they refer to that as "windows," do they not?
- A. Not necessarily. A window is out of the side of the casing. Maybe you can call that a section of the casing. They make both windows—in some cases they will take the complete circumference of the casing out in a section; they will cut it out.
 - Q. Now, you have been on a well using your

scratchers on a casing where you have placed a plug in the well, have you not? [2167]

- A. On a casing?
- Q. Yes, or on a drill pipe or on what is commonly referred to under that circumstance as a wash pipe, haven't you?
- A. Only recently I was on a—I will say "recently" I was on a job where we placed a plug in the well, where we were using both scratchers and centralizers on the casing, [2168] while we were—in other words, placed a plug below the shoe.
- Q. (By Mr. L. E. Lyon): In that case you were using what is called a wash pipe on the end of a drill pipe or other pipe or casing, or whatever you want to call it, were you not?
 - A. Using the washpipe?
 - Q. Yes, a perforated pipe at the bottom.
- A. If the casing shoe having a hole through it, through the bottom, yes, the casing shoe would be. It is about a foot long. It conducts fluid to a foot and a half long or something like that, conducts the fluid through it.
- Q. And it has apertures to let the fluid which it is conducting out into the formation in the well, doesn't it?
- A. It has a hole through it that you pump the fluid down through it and up on the outside into the annulus.
- Q. Immediately above that shoe you have placed scratchers?

- A. Scratchers and centralizers.
- Q. How many scratchers?
- A. Let's see. We had, I believe, seven scratchers and two spiral centralizers on this bottom joint of pipe, and we installed a 15-foot cement plug.
 - Q. Then what did you do?
- A. I say, on this bottom joint. I will say on the [2169] bottom, let us say, 45 feet of pipe. Then after we installed the—when I was sure, when I felt sure that the plug was in place, my instructions were to pull up out of it.
 - Q. To what?
 - A. My instructions were to pull up out of it.
 - Q. Pull up out of it, you mean remove the pipe?
- A. Remove the scratchers and centralizers from the so-called placement plug.
 - Q. Then what was done?
- A. Then the cementing operation was continued until the plugs bumped.
- Q. What was done with the plug that was formed?
- A. The plug that was formed was, of course, formed.
- Q. Well, was it subsequently partially drilled out, or side-stepped, or what was it placed in the well for, this particular plug?
- A. I don't recall whether it was subsequently drilled out. It could have been. It was placed there, as has been a common practice. It was placed there to create a temporary new bottom.
 - Q. A temporary barrier?

- A. Well, let us say a temporary or permanent new bottom, whatever purpose that they wanted to use it for.
- Q. You don't recall how this well, or whether it was subsequently produced, do you? [2170]
- A. They could have gone deeper. I don't know if they went deeper. Their intentions were to test zones and if they were unproductive, why, they could have surely gone deeper.
- Q. Your position is, then, that this plug could have been either a bottom plug or a bridge, as they are commonly used in the art?
- A. The plug was placed up the hole, of course, and it was—I would call it a bridge plug. It was used for the purpose of creating a new bottom.
- Mr. L. E. Lyon: Just one moment, please. May I have Exhibit B?
- Q. I place before you Exhibit B, that is the September 11, 1941, advertisement of the Weatherford Spring Company, and call your attention to the sentence in the last paragraph of that ad which reads:

"However, the scratchers may be welded direct to the pipe, and this procedure is not uncommon."

Your statement there is that at that time, as far as Weatherford Spring Company scratchers were concerned, it was not uncommon to weld them to the pipe.

A. Are you asking me if this was my statement, or if that was a practice there?

- Q. If that was a common practice at the time to weld Weatherford Spring Company's scratchers to the pipe as it states. [2171]
 - A. This is what date, now? September 11-
 - Q. September 11, 1941.
- A. ——19 and—let me say this: that I had not at that time seen any of our scratchers welded to the casing. I didn't have anything to do with the preparation of this catalog. * * *

Mr. L. E. Lyon: What I asked you was---

- Q. (By Mr. L. E. Lyon): ——was it common practice at this time, as stated in this advertisement, to weld Weatherford scratchers to the pipe?
- A. You are going to have—on that subject all that I can state as to what I was attempting to do at that time——

The Court: No one asked you that. No one asked you that. I wish you would listen to the questions, Mr. Hall.

The Witness: All right.

The Court: The question is, was it a common practice at that time? I don't know. Are you in the well-drilling business? Are you drilling wells yourself?

The Witness: I was working in the oil fields at that time, sir. [2172]

The Court: All right. The question is: Was it a common practice? Not with you, but with anyone in

the business, to do that with Weatherford scratchers at that time? That is the question.

The Witness: That is a question, sir, that I don't know. I don't know.

The Court: Well, then, say you don't know.

The Witness: I didn't know what was being done.

The Court: Let us get on with this. Say you don't know. You do not have to know everything. Just answer the questions.

Q. (By Mr. L. E. Lyon): Also in this advertisement, Exhibit B it says:

"The scratchers are usually anchored in place by welding small lugs above and below, allowing for approximately 10 inches of up-and-down play."

Was that method of mounting the scratchers common in the trade at that time, at the time of this advertisement?

A. That was the method that I was pursuing in California.

The Court: Can't you just say yes or no sometime?

The Witness: Yes. [2173]

34 34 31

Recross-Examination

By Mr. L. E. Lyon:

Q. I place before you, Mr. Hall, a letter, a photostatic copy of a letter of May 3, 1949, of the Weatherford Oil Tool Company, entitled "Announcement."

The Court: Has that been marked.

Mr. L. E. Lyon: No, your Honor. I will ask that it be marked at this time.

The Clerk: Defendants' Exhibit DN.

(The document referred to was marked Defendants' Exhibit DN for identification.) [2178]

Mr. Scofield: Let me see what you have here.

We will stipulate, your Honor, that that was an announcement that was sent out at the time that appears on it.

The Court: What is the date?

Mr. Scofield: May 3, 1949, your Honor.

Mr. L. E. Lyon: And I will offer the document heretofore identified as Defendants' Exhibit DN in evidence as Defendants' Exhibit DN, in view of the stipulation.

The Court: It is received in evidence.

(The document referred to, marked Defendants' Exhibit DN, was received in evidence.)

Q. (By Mr. L. E. Lyon): I will ask you if, on May 3, 1949, you were the secretary-treasurer of the Weatherford Oil Tool Company. That hasn't any-

thing to do with the exhibit. Were you at that time the secretary-treasurer of the Weatherford Oil Tool Company?

A. I was.

Q. All right. Now, this letter was sent out on May 3, 1949, announcing a 25 per cent over-all reduction in prices, was it not, to the trade?

The Court: By "this letter" you are referring to Exhibit DN?

Mr. L. E. Lvon: To Exhibit DN.

A. That is correct.

Q. (By Mr. L. E. Lyon): And that price reduction at [2179] that time was made to the trade to meet competition, wasn't it?

A. It was made to the trade for the reasons set forth there.

Q. And to meet competition, wasn't it? You were the secretary-treasurer?

A. To meet competition?

Q. Yes.

A. No. It was not made to meet competitive prices.

Q. Wasn't the Nu-Coil scratcher selling to the trade, of the 5½-inch size, for about \$6.00, where your scratcher was selling for \$8.00, of the same size?

A. What size are you referring to, sir?

Q. The 5½-inch size.

Mr. Scofield: We will stipulate, your Honor, that according to Exhibit 118, which is the B & W price list, that the 5½-inch Nu-Coil scratcher was selling for \$6.00.

The Court: By B & W?

Mr. Scofield: Yes, sir. And that, according to Exhibit 124, which was the weatherford Oil Tool price list effective January, 1, 1951, the 5½-inch scratcher was selling for \$8.00.

Mr. L. E. Lyon: I will accept the stipulation, if that stipulation may be understood to be an answer to the question that I asked the witness. [2180]

Mr. Scofield: And that the Multiflex scratcher of B & W of the same size, 5½ inch, was selling for \$8.70; and that the wall-cleaning guide, the same size, 5½ inch, was selling for \$8.70.

The Court: Is it so stipulated? [2181]

Mr. Scofield: * * * I Now, your Honor, renew my motion to produce the sales records of B & W, Inc., for the reason that Mr. Bowersock indicated in his testimony that the records of the purchases of these companies, of scratchers and centralizers, were necessary to complete the picture of the purchases of those companies throughout the period that the charts and the schedules covered.

I also renew the motion because it will not only show the scratchers and centralizers purchased by the companies covered by the schedules, but it will establish the type of centralizers and the type of scratchers, particularly, that [2187] were purchased, by the prices as indicated by the price lists which are already in evidence and which were referred to this morning, and these sales schedules or these sales records will also indicate the increase in the purchases by these companies of B & W scratchers

over the period where the same sales decreased on the Weatherford charts and schedules. And therefore, the motion, which I believe was made or was filed on November 13th, is renewed and I ask that these sales records of B & W be produced and be made available.

* * *

Mr. L. E. Lyon: Your Honor, at this time, I will resist [2188] the motion for production on two grounds: first, on the ground that there is no possible reason shown for the production of the books of the defendant, as no element of unfair competition has been proven, and certainly, as established by good reasoning, there is no reason for delving into the books of a party where there is no element of unfair competition and no possible reasonable results could be obtained.

Now, we have the claim of unfair competition, for example, as to the Gulf Oil companies, and we have this statement from the witness of the Gulf Oil Company, taken on behalf of plaintiff, that states unequivocally that there was no threat ever made against the Gulf, and that is the basis of their charge; that B & W made it clear at all times to the Gulf that they would never bring suit against the Gulf.

On the contrary, their testimony is that the plaintiff charged them with infringement and that they would bring suit.

Now, we can go right straight back through the companies in that way, and the evidence in that way,

and there is no possible claim of unfair competition that could be maintained here.

We have one basis, and that is unconnected, that we told people that we had patents.

I submit, under the patent laws of the United States, a [2189] person who holds patents must, if he proposes to have anything to do with those patents, advise the trade and advise the customers generally that he holds patents, or he may be charged even then with unfair competition for not doing it.

The Court: How could you hope to establish any claim of unfair trade practices relating to Gulf without producing the very records which are demanded?

Mr. L. E. Lyon: That may be on a matter of accounting, if we establish that, but that again is premature. The defendant has not put in its case and we will establish that from the fact not of proof of the amount of damages, but the amount of damages would be provable on an accounting only, as your Honor has already ruled. As to elements of unfair competition which might be enjoinable, even without damage, we have in the record already that statement made and acted upon by the Gulf, that if the Gulf Oil Company purchased from B & W the certain type scratcher that is here in evidence, that Mr. Scofield stated definitely on July 29, 1947, that he would bring suit against them, followed with the record evidence of Dr. Foote's letter written by Mr. Vollmer, ordering that, pursuant to that, that no such scratchers be bought from this defendant. There is no such evidence of any kind.

Now, when we go into the Canadian situation, of Canadian Gulf, the facts are, as established by the depositions [2190] of Mr. Houghton and Mr. Littlehales, taken by the plaintiff, and again reiterated, that the B & W at no time threatened the Gulf with any Canadian patents, and that Gulf, through its own patent department, discovered the Canadian reissue patent, examined it, and had formulated its own opinion and asked for no statement of any kind from B & W with reference to that patent, other than the one statement asked of me, and that is how, as Mr. Houghton put it, "Did you get better claims in Canada than in the United States?" and my only answer to that is, as established by Mr. Houghton's testimony, which was that we were not responsible for the claims in the United States. That is all the conversation ever had between the Gulf and B & W with respect to the Canadian patent situation. That is established by their own witness called by them. That certainly cannot amount to unfair competition. And we could go right straight through the companies in that way.

If there is any basis upon which this charge of unfair competition could be possibly sustained, I think it should be aired right now, before a demand, based upon curiosity and to indulge in going through our books, is ordered by this court.

The Court: But from the evidence so far, I take it, upon this motion the court must draw every reasonable intendment in favor of the [2191] plaintiff.

Mr. L. E. Lyon: That is correct.

The Court: The evidence thus far shows that the plaintiff had some business and lost that business during a certain period.

Mr. L. E. Lyon: That is correct.

The Court: There are facts in evidence, I take it, from which it would be reasonable, or from which the reasonable inference might be drawn that some conduct of B & W may have contributed to that, may have been the proximate cause of losing the business.

Now, isn't it relevant to any proof of that to show that not only the plaintiff lost the business but that the defendant got the business?

Mr. L. E. Lyon: Are we going to bring in Halliburton's books, Larkin's books, Baker's books, and the rest of them? They are all testified to here to have been in the same business.

The Court: But they are not parties to this action.

Mr. L. E. Lyon: I know, but merely the fact that our business increased the same as theirs did, by their own records, it would not establish any such factor.

The Court: That might go to the weight of it, but not to the admissibility of the evidence. Of course, I take it that you may argue that even though plaintiff lost the business and even though B & W's business increased by [2192] the same amount during the period, that, non constat, the Gulf might have been buying twice as much during that period.

Mr. L. E. Lyon: That is right.

The Court: And that the business that the plain-

tiff might have lost might have gone to Halliburton, Baker, or whoever the other competitors might be.

Mr. L. E. Lyon: That is correct.

The Court: But that goes to the weight of it.

Mr. L. E. Lyon: But when you get down to where the item is insignificant as to the weight that can be given to it, and that is my position, even if it had any weight at all it would be so insignificant that it could really have no probative value whatsoever.

The Court: That is a matter of argument, Mr. Lyon.

I think the plaintiff is entitled to those records, that they are entitled to them insofar as their case goes, as to what happened to your clients' business, the business with respect to those customers during that same period.

Now, if you have comparable charts or records——

Mr. L. E. Lyon: We haven't any comparable charts or records. In fact, our books are going to show that we did business in Canada, for example, solely through supply companies. We have no records and absolutely no way of determining what oil company ever made a purchase. Those records are here in court, insofar as Canada is [2193] concerned. Our business is entirely with supply companies. Now, what good is that going to do?

The Court: I don't know what they will show.

Mr. L. E. Lyon: Well, I am saying, as far as the Canadian books are concerned, that is what they show. The Court: But counsel is entitled to see what evidentiary proof he can get from them.

How do you wish to proceed, Mr. Scofield?

The motion will be granted.

Mr. Scofield: I should like to have the books made available and in the most convenient way that we can work at it, that is, if we are required to work here in court, or wherever our accountants can look over these sales records and make their schedules up from these records, which is, I think, more or less up to the court. That is, you indicated before that it would have to be done here in court. Now, if it can be done in Mr. Lyon's office—

Mr. L. E. Lyon: Not in my office.

Mr. Scofield: ——or at some place else, or in Mr. Subkow's office, that would be agreeable.

Mr. Lyon: If the order of the court is that we produce the records, the records will be produced here in court. [2194]

Mr. Scofield: Of course, we want these records of the companies that the schedules were here, so it is not limited to the Canadian.

The Court: They were embraced in your [2195] motion?

Mr. Scofield: Yes, sir.

The Court: And the motion was granted.

Mr. Lyon: I have here what I am informed are all of the invoices of sales in Canada through the independent contractor in Canada, acting under contract with the B & W. These invoices are an offer-

ing here at the present time and pursuant to the court's order.

The Court: Mr. Lyon, all of the supporting records will have to be produced if counsel insists upon them.

Mr. L. E. Lyon: We have no way of getting any supporting records for these, your Honor. This is an independent contractor and, in accordance with our contract, we are entitled to these records. We sell to this man in Canada. We have no say as to who he sells to. Our contract provides that he must supply us with copies of the invoices. We have demanded them according to that contract since this case started. We had never even demanded them before. They are here, sent to us from Canada, right here. That is all we could get.

The Court: That covers Canada. Now, what about the other customers, the Standard Oil Company, the Texas Company?

Mr. L. E. Lyon: As far as the United States is concerned, if there is to be a review of the records on that, we are informed by B & W that they would desire it in the office of their accountant, and where that is I don't know. [2196]

* * *

The Court: As I understand, you wish the records with respect to sales to Union Producing Company, Gulf Oil, California Company, Texas Company, Standard of California, Amerada Petroleum, covering the same period that is covered by the exhibits in evidence, namely, Exhibits 176 to 181,

both inclusive, which have been produced here on behalf of the plaintiff, is that correct?

Mr. Scofield: Yes, sir. I think that the demand is covered in our motion of November 12th which is on file with the clerk, but we have said——

The Court: If the records are produced covering the sales by B & W Company to those customers, if any, during [2197] the same period; in other words, if corresponding information to that covered in your Exhibits 176 to 181, inclusive, is produced by the defendant, I take it that is what you are after?

Mr. Scofield: That would be satisfactory. We would like the contracts with this Canadian company, to be sure as to just what the arrangement is up there, because it may be that what we have here will not be all that we will be able to get by means of the contract, you see. That is, the contract with the Canadian company, the Import Tools, is a firm in Canada. I don't know what their connection is with the B & W.

The Court: Very well, you may have the contract also. [2198]

The Court: As I understand it, the motion is limited to the production of your records which will show corresponding information with respect to your business with those companies which are named in and with which Exhibits 176 to 181 are concerned. I did not understand it to be a motion for all of your records for sales to everyone.

Am I correct in my understanding of it, Mr. Scofield? [2199]

Mr. Scofield: What I did, I renewed the motion, your Honor, that I had filed on November 12th.

The Court: I am not limited to that.

Mr. Scofield: But it will be satisfactory to get the sales records of B & W for the companies that we have offered, that is, 176 to 181, inclusive, over the period that those schedules and charts cover.

The Court: I understood your motion and when I granted it, I granted it on that basis.

Mr. Schofield: Yes, sir.

The Court: I thought I asked you that, that you want the records which will show the corresponding information.

Mr. Scofield: Yes, sir, I do; that is correct.

The Court: I think you gentlemen are intelligent enough to understand that.

Mr. L. E. Lyon: I do not want to leave the court under any misapprehension with regard to what is ordered to be produced or what may be expected to be produced.

It is my information that in the United States our business is through supply companies, again. We do not have such delivery tickets or such invoices which will show, in most cases, as I understand it, who the ultimate consumer was in a great many cases. In some cases we do, but it will be, as I understand it, quite fragmentary as to who the ultimate user was. And that is the condition of our records. We [2200] do not sell direct. In most cases—

The Court: Here is the situation, Mr. Lyon: You will have to produce all your records covering that period of time. We want to satisfy ourselves. Mr. L. E. Lyon: Certainly. And that is why I am telling the court this. We will be glad to produce what we have.

The Court: What period of time is it?

Mr. Scofield: From 1946 to 1953, to October of 1953.

The Court: Beginning what time in 1946?

Mr. Scofield: January of 1946.

The Court: Very well. You may produce all of your records with relation to the sales and business transactions during that period, whatever is necessary to satisfy the plaintiff that they have exhausted the evidentiary possibilities for this purpose.

What I had in mind that you should produce or have your accountants produce is comparable information. We could proceed upon your showing in the same way we proceeded upon the plaintiff's showing, have the supporting data available.

Mr. L. E. Lyon: Where it exists we will produce it. I do not want the court to labor under the apprehension, however, that our records are going to be able to show where all scratchers or all centralizers were sold, because it is my understanding they do not so show.

Mr. Scofield: If they will produce the records, your [2201] Honor, we will leave it to the accountants to work that out as to just what the records show.

The Court: Very well. Can't you gentlemen arrange with your accountants to take that matter up?

Mr. Scofield: Yes, sir.

Mr. L. E. Lyon: I tell them that they will be

available even this evening if they want them. We will have to get in touch, I am informed, with the accountant and see if he is here. As far as we know he is here and available. [2202]

DEFENDANTS' CASE IN CHIEF

Mr. L. E. Lyon: Mr. Barkis, will you take the stand, please?

The Clerk: Have you been sworn, Mr. Barkis? The Witness: No. I have not.

BRUCE BARKIS

called as a witness by the defendants, being first sworn, was examined and testified as follows:

The Clerk: Will you state your name, please? The Witness: Bruce Barkis, B-a-r-k-i-s. [2204]

Direct Examination

By Mr. L. E. Lyon:

- Q. What is your occupation, Mr. Barkis?
- A. Manufacturer.
- Q. Connected with what company?
- A. B & W, Inc.
- Q. Is B & W a corporation? A. Yes, it is.
- Q. When was it incorporated?
- A. I believe in 1939.
- Q. What office do you hold with B & W, Inc.?
- A. I am president of the corporation.
- Q. Have you had that position at all times since its incorporation? A. Yes, I have.

- Q. What is your training and experience in petroleum engineering and in drilling and in operating the wells, Mr. Barkis, oil or gas wells?
- A. I am a graduate engineer of the University of California in mining engineering.
 - Q. In what year?
- A. 1917. After returning from France I went to work in the oil fields on Ventura Avenue, and shortly after, a year and a half after, went with the Division of Oil and Gas of the State of California. [2205]
- Q. For how many years were you with the Division of Oil and Gas?
- A. I was with them for two years as petroleum engineer, inspector and petroleum engineer.
 - Q. What were your duties?
- A. In field testing of oil wells to establish rates of mud loss to wells, and tests of water shut-off, plugging effectiveness, and in the last year, as office engineer in reviewing applications to drill and establishing the requirements for drilling.
- Q. What is the supervision of that board over drilling of oil and gas wells in the State of California, Mr. Barkis?
- A. It is established by statute and is provided for the conservation of our natural resources.
- Q. Does it maintain any permit jurisdiction in granting of permits to explore or drill for oil or gas in this state?
- A. Yes, it does. Those are established by statute, and prior to drilling, an individual or an operator

must file a petition to drill, and then the Divison of Oil and Gas establishes the requirements for drilling and for protecting the oil resources.

- Q. Do those requirements also deal with the protecting of the natural water resources of the state?
- A. Yes, they do; that is right. They provide for the cementing of surface casing and the protection of the surface [2206] waters.
- Q. All right. Now, after your employment by this bureau what was your next occupation in the——

Mr. Scofield: What date was that, Mr. Barkis?
The Witness: In 1922 and '23 I joined Pan-American Petroleum and other Edward L. Doheny companies in 1923.

- Q. (By Mr. L. E. Lyon): In what capacity?
- A. Field petroleum engineer for them in the Signal Hill, Torrance, Baldwin Hills in early drilling of that time. Mr. Wright, my partner, was also a field engineer for the same company at that time and that is where we first became acquainted.
 - Q. And when was that? A. In 1923.
- Q. With this Doheny interests what were your duties?
- A. The usual petroleum engineering duties having to do with the drilling of wells, the coring of formations. At that time there was no electrical logging, so we cored. And the running and cementing of casing, the drilling in of wells and the final completion of wells.

- Q. How long did you stay in that position?
- A. I was with Pan-American until 1931, but in the latter part of the period I was at Kettleman Hills as assistant superintendent in the early development up there; from 1929 on in charge of the field operations. [2207]
- Q. After 1931 were you connected with the petroleum industry?
- A. I left the Pan-American and went with Rio Grande Oil Company as general field superintendent in charge of all of their production and drilling operations.
 - Q. Where were they located?
- A. Their headquarters were here in Los Angeles, and their operations were located here, and also we had production in Texas.
 - Q. How long did you stay with that company?
- A. Until they merged with Richfied Oil Company in 1937.
 - Q. Then what did you do?
- A. I was over there for a short period as assistant manager of production, and left to join Lane-Wells who had developed a new method of gunperforating casing, and I joined that company.
- Q. And you stayed with that company until 1939?

 A. Early '39, ves.
- Q. Then you formed B & W in the middle of 1939?

 A. That is correct.
- Q. State the circumstances of formation of B & W.
 - A. Mr. Wright came to my home—and I had left

Lane-Wells—and told me that he had developed a idea for getting better cement jobs. I had been wit Lane-Wells and had traveled all over the Unite States and was very familiar [2208] with the problem. And he told me his ideas and it sounded reasonable. So we decided to go ahead and try to worksomething out.

- Q. When was that? A. In 1939.
- Q. In what part?
- A. My recollection is that it was April, May somewhere in the spring.
- Q. Now, you stated that you were familiar with the problem. What problem are you speaking of?
- A. The problem of cementing and completing of wells.
- Q. What was the particular part of that problem that you had in mind, if anything? What was the particular problem?
- A. Well, the problem was getting a good cemen job. And in 1925, about, the first straight central izers were introduced to the oil fields and came into general usage, but in California here it is general practice to cement the casing over the productive section, that is, at that time that was very nearly universal—not general, but universal—and it was only necessary to get a good cement job around the bottom of the casing to exclude any water or gas from above the productive section, and centralizers were helpful, but, in 1935, when the gun perforator came into use, a whole new series of events came into being. [2209]

Down in the Texas Gulf-Louisiana Gulf Coast the sands are comparatively thin, and a new practice was developed of cementing casing through, through several of these sections, and then gun-perforating to allow the oil to come on into the casing.

- Q. And gun-perforating only that particular sand that you wanted to produce from, is that right?
- A. What is known as selective completion from each and every sand you felt that you wanted to produce from.
- Q. Did that produce any particular problem in the oil fields?

 A. It certainly did.
 - Q. In what respect?
- A. Well, where it had been rather—I won't say a simple matter, but fairly easy to get a good cement job around the bottom of the casing, as you went up above the cement depths, that is, the casing depths, several hundred feet or maybe several thousand feet, the cement itself would travel, would channel, and it would not take out in the annular space between the casing and the formation. And then, when the well was gun-perforated, the gas from above or the water from below would come in then through these perforations and contaminate the clean oil production.

The Court: Would it be necessary to fill that annular space with cement from the bottom of the hole on up to a [2210] point?

The Witness: To a point, I would say, to a hundred or a couple of hundred feet above the uppermost productive section.

The Court: In order to make a good cementing job?

The Witness: Yes, sir. I won't say 100 per cent, but reasonably close to that.

Teplitz in his paper said that the usual casing cementation ends up—and Mr. Hall is very familiar with that—with the annular space half full of mud and half full of cement. So something had to be done about getting the other half of the mud on out.

- Q. (By Mr. L. E. Lyon): Then, as I understand your statement, the particular problem that developed was to get a bond between the cement and what we would call the virgin formation?
 - A. That is correct.
- Q. And you state that your company was formed by you and Mr. Wright with reference to that problem, is that right? A. That is exactly right.
- Q. Now, after this B & W was formed in the summer, I believe, of 1939, what was done with reference to that problem, if anything.
- A. Well, the idea was to develop equipment that would meet the requirements of field practice, to remove that mud [2211] cake. Mr. Wright's idea of scratching the mud from the formation face required the development of commercial products.
- Q. All right. Now, you were in a state of development of the products then, I understand, from then during the remainder of 1939, is that true?
- A. Well, yes, sir. In addition, I will say that there were several other ideas that we were trying to

develop, having to do with sand control and other completion problems, but those were secondary.

- Q. But your main occupation during the remainder of 1939 then dealt with this problem of getting a bond between the formation and the cement, is that correct?

 A. That is correct.
- Q. Did anything else occur in the year 1939 which had a particular bearing on the development of that problem?

 A. Yes, there did.

Mr. L. E. Lyon: Just one moment.

I will state at this time that Mr. W. E. Nash, accountant for B & W, will be available at 2700 Cherry Avenue at any time after 8:00 a.m. tomorrow morning, with the books of B & W.

Mr. Scofield: That will be all right, then. That will be in plenty of time.

- Q. (By Mr. L. E. Lyon): Now, what was it that occurred [2212] in 1939 that had particular bearing on the development of this problem?
- A. The West Montebello oil field was being developed that year and there was a subsurface out there that was critical. There was a high-pressure water formation, water-bearing formation, that overlaid the oil-producing horizon by barely a few feet, just a few feet, I would say 12 to 20 feet, and the Union Oil Company was a large operator in that field.
- Q. At approximately what depth was that condition?
- A. I will have to guess. I will guess around 7,000 feet.

Q. Around 7,000 feet?

A. It may not have been that deep.

Q. All right. Proceed.

Mr. Scofield: What date was this, too?

The Witness: In 1939.

In running the casing on down and landing it above this producing section, the job was to get the cement job in 12 feet between the water and the oil formation, or 20 feet, some small figure, and the practices that had been adequate before wouldn't or didn't work out, so the Union Oil Company was having to do a recement job in the West Montebello field. They turned the problem over to their field research department, and Mr. Philip Jones was head of that department. [2213] Mr. Berdine was one of his assistants. And they looked into the problem of cementing and that was the forerunner of the tests that were made down at Dominguez Hills in 1939.

Q. (By Mr. L. E. Lyon): What, if anything, did B & W have to do with these tests made by the Union Oil Company at Dominguez Hills then?

A. Well, all manufacturers of equipment that had anything to do with cementing, such as Halliburton, Baker Oil Tools, Cosco Manufacturing Company, Security Engineering, and ourselves, and there may be one or two others, furnished equipment to be tested out there, to find out whether our cementing practices could be improved.

Q. Now, how did you come to get in on that? You had no product on the market at that time, if I understand you.

- A. We, both Mr. Wright and I, had friends in the Union Oil Company. They knew that we had joined together on this work and we were told that——
 - Q. When were you told? When was it, in 1939?
- A. Well, it was the late summer, I will say August, September, October—September is pretty close to it.
- Q. Now, had you even determined on a form of tool to offer to the trade at that time?
- A. We had worked—we had made quite a few scratchers, different forms. We had bored holes in collars and we had made relieved collars different than the usual form of [2214] development. And it was about that time, or before their tests were made, anyway, that we had worked out a form of scratcher similar to wall-cleaning guide—I don't know the exhibit number.
- Q. Is it correct to state that the wall-cleaning guide was first experimentally tested in these experimental wells of the Union Oil Company at Dominguez Hills? A. That is so.

The Court: Is the physical specimen of that first device here?

The Witness: There is what they call replicas here. On that piece of pipe there is one of them.

The Court: That is Exhibit—

Mr. L. E. Lyon: Well, this one exhibit that I have in my hand is Exhibit IIII, but I think there is a little foundational matter I want to put in first.

The Court: I want to be certain that the record will show what the witness is referring to.

Is that the exhibit which you are referring to?

The Witness: That general form of scratcher, that is the wall-cleaning guide. [2215]

* * +

- Q. (By Mr. L. E. Lyon): You have spoken, Mr. Barkis, of some tests or determinations that were made at Dominguez Hills by the Union Oil Company. Were you present at any time during the making of those tests?

 A. Yes, I was.
 - Q. How many times were you present?
- A. I can recall five or six times. It may have been more.
- Q. Did you take any equipment with you to Dominguez Hills at any time?
- $\Lambda.$ I can't recall that I delivered any of the scratchers to the test location. I may have.
 - Q. Were you there with Mr. Wright?
 - A. Yes. Yes, I was.
 - Q. Upon more than one occasion?
 - A. Yes, I was.
- Q. Did you observe the making of any of the tests and the test apparatus that was used?
- A. Yes, I saw the test apparatus located on the tank. I saw several of the test results laid out on timbers on the ground. In fact they saved quite a few of them there for a period. I don't recall—yes, I recall seeing one of the tests conducted, one of the cementing operations conducted.
 - Q. When was that? [2216]

- A. In the fall of the year, I recollect November or December.
- Q. Now, at the time these tests were made was the form of the wall-cleaning guide determined upon as a commercial tool?
- A. The form of the scratcher is shown in the exhibit—I don't know the number.
- Q. I will place this before you. I see you are looking at it. Give us the exhibit number if this is the one you were referring to, Mr. Barkis.
- A. That is IIII, Exhibit IIII. The form of the scratcher as shown in Exhibit IIII had been developed.
- Q. Certain scratchers were taken to this well—I mean to Dominguez Hills. Do you know how many scratchers were taken?
- A. No, I do not recollect just how many were taken, that is, entirely.
 - Q. Now, Exhibit IIII-

Let me have Exhibit X.

I will place before you Exhibit X, Mr. Barkis, and ask you if you are familiar with this document?

- A. Yes, I am.
- Q. All right. Now, in the Exhibit X there are photographs; one, Figure 14; one, Figure 18; and one, Figure 26, which show three scratchers. Do you recognize those [2217] scratchers?
 - A. Yes, I do.
 - Q. What are they?
- A. They are B & W wall-cleaning guides of different wire formings.

Q. How do those scratchers differ, if at all, one from the other of those three figures, 14, 18 and 26, of Exhibit X?

Mr. Scofield: The Exhibit, your Honor, is the best evidence, of course, of the difference.

Mr. L. E. Lyon: I am not asking him how the photographs show that they differ. I am asking him about how these scratchers that this witness produced differed one from the other as exemplified—not "as exemplified," but of the three scratchers of these three figures.

Mr. Scofield: The report itself is the best evidence.

The Court: Isn't that a matter for opinion testimony?

Mr. L. E. Lyon: No, your Honor; it is a matter of fact.

The Court: You mean he saw the three?

Mr. L. E. Lyon: Yes, he is the fellow that made them. He was there.

Mr. Scofield: That has not been testified to.

The Court: You are asking him to relate not with respect to the background itself, but with respect to his memory?

Mr. L. E. Lyon: Yes, your Honor. [2218]

Mr. Scofield: There has been no testimony so far that this witness did anything more than just saw these. He didn't manufacture them so far as the testimony shows up to now.

Mr. L. E. Lyon: I think he so testified, that they were B & W scratchers.

Mr. Scofield: But not that he had anything to do with the manufacture of them.

The Court: If he saw them, he may relate what he perceived with his eyes. Do you understand the question, Mr. Barkis?

The Witness: I am sure I do.

The Court: You may answer it.

A. The only difference is in the end forming of the wires as they extend from the collar.

- Q. By Mr. L. E. Lyon: Do you recall whether there was any other form of scratcher delivered by B & W to these tests in which the end formation of the wires differed from that shown in Figures 14, 18 and 26?
- A. Yes. I recall that the first scratchers that were delivered had wires extending straight out, and that form is different than these three.
- Q. All right. Now, did that scratcher differ in any other way from the scratchers shown by Figures 14, 18 and 26 of the Exhibit X—that scratcher or those scratchers? [2219]
 - A. Than in the end forming of the wires?
 - Q. Other than in the end forming of the wires.
 - A. No, it did not.
- Q. In other words, to your knowledge, was there more than one test conducted at the Dominguez Hills determination with B & W scratchers? [2220]

A. Yes, there were more than one test. [2221]

* * *

- Q. Mr. Barkis, at the test made at Dominguez Hills, were the ends of the wires of the scratchers of B & W bent in more than one direction?
 - A. Yes, they differently were.
 - Q. In how many different directions?
 - A. Three different directions.
- Q. What was the purpose of those determinations of bending in that manner?
 - A. To determine the effect of this mud removal.
- Q. All right. Now, following these Jones and Berdine tests did B & W sell scratchers similar to those experimented with in the Jones and Berdine tests?
- A. Sold scratchers similar to one form but not identical.

Mr. Scofield: Will you read the last part of the answer? I did not get it.

(Portion of answer read as follows: "but not identical.")

- Q. (By Mr. L. E. Lyon): You have before you Exhibit III. [2222] To your knowledge does that exhibit correspond to any scratcher experimented with at the Jones and Berdine tests?
 - A. Yes, it does.
 - Q. Which one? Which test?
 - Λ . The test shown in Figure 26.
- Q. In Figure 26. Now, you have testified that you sold scratchers which did not precisely correspond with any used in Jones and Berdine's tests,

but which were closely in approximation thereto, I believe.

Can you identify in this group of scratchers any such scratcher, Mr. Barkis? You can come down here and pick it out, if you will, if there is one. If there isn't, say so.

A. This is the scratcher that I had reference to when I said it was similar but not identical.

Q. Give the exhibit number.

The Court: Exhibit number?

A. FFFF.

The Court: FFFF?
The Witness: FFFF.

Q. (By Mr. L. E. Lyon): Now, just take that with you, Mr. Barkis, and explain to us how that differs from the ones used in Jones and Berdine's experimental tests at Dominguez Hills.

A. The points of difference I would list are in the form of the outer portion of the wire. [2223]

The scratcher of Exhibit IIII has a sidewise bend and has balls formed by welding at the end of each wire.

In the wire forming of Exhibit FFFF it extends sidewise and has a turned-up section at the end of each wire.

The points of similarity are: the collars are the same, the holding clips are the same, the wires are anchored the same and extend from the collar in the same direction.

Q. Before you, in addition to this Exhibit FFFF, you have Exhibit IIII, and Exhibit IIII

is mounted on a simulated casing, Exhibit CF. Is that mounting illustrative of anything, Mr. Barkis?

A. It is illustrative of the mounting shown in Figure 26.

The Court: Figure 26 of—

The Witness: Of Exhibit X.

Q. (By Mr. L. E. Lyon): Now, I notice with respect to Exhibit CF that there are two bands of rod spaced apart on Exhibit CF. What are those?

A. Those are means for confining the travel of the scratcher on the casing, and to permit the scratcher to slide and to rotate on the casing between those points.

The Court: Are these what you call lugs? [2224] The Witness: This is a form of lug. It is a solid band.

The Court: Now, we are referring to what?

The Witness: To Exhibit CF, or to the rod welded around the exhibit.

The Court: It is the simulated easing there?

The Witness: No, to the rod welded around the Exhibit CF.

The Court: Yes. There are two ridges on there.

The Witness: That is correct.

The Court: The circumference, I mean, of a simulated casing.

The Witness: That is correct.

Q. (By Mr. L. E. Lyon): How does this simulated casing compare with what was actually used

in a test conducted at Dominguez Hills and as shown by Figure 26 of Exhibit X, Mr. Barkis?

A. The Exhibit CF appears to be, without measuring, 3½-inch easing, and that is the size of the easing that was used in the Jones and Berdine tests. [2225]

Q. (By Mr. L. E. Lyon): How was the scratcher shown in Figure 26 of Exhibit X, and as it was used in the test, mounted on the connection shown in that photograph, Mr. Barkis?

Mr. Scofield: Now, the exhibit itself of course is the best evidence of that. There is a photograph of it.

Mr. L. E. Lyon: I would agree with that, except for your argument.

The Court: Objection overruled. He may answer.

Tell what you saw.

A. The scratcher was mounted between lugs as shown in the photograph, Figure 26, of Exhibit X.

Q. (By Mr. L. E. Lyon): And those lugs were constituted how, Mr. Barkis?

A. By placing the rod of mild steel around the casing and welding it on the outer edges to the casing identical with the method or form shown in Exhibit CF. [2226]

Mr. Scofield: I move that be stricken. On this witness there is no foundation laid as to the fact that this witness put these rods on, as to whether they were welded on, mild steel, or what they were.

The Court: Isn't he a man qualified to express that opinion insofar as description is concerned? To me I would say they appear to be welded ridges. Now, he has gone one step further and he is using the terminology of the welder, I take it, of wrapping a piece of welding rod around it and fusing it to the casing.

Is that the process?

Mr. Scofield: I don't know. All I can tell is from the picture and I presume that is what he can testify, and I suppose the picture is the best evidence, your Honor.

The Court: If I had nothing more to go on, I would draw the inference that some piece of metal was wrapped around the casing and fused to it by a welding process of some kind.

Mr. Scofield: If he will give his answer as an inference from that drawing, I will withdraw the objection.

The Court: And that would form what I would call a ridge and what someone here called a lug.

Q. (By Mr. L. E. Lyon): Mr. Barkis, was there any significance in the manner in which these rods were welded to the easing with the welded rod as illustrated by Exhibit CX, [2227] always welded from the outside of the rods away from the scratcher?

The Court: What is in issue here now seems to be whether or not it is in evidence that a piece of welding rod is the metal that was used on the casing.

Mr. L. E. Lyon: And the witness has so testified.

The Court: Have you so stated?

The Witness: Yes.

The Court: Did you see it done?

The Witness: I don't recall that I saw the rod welded on the casing. I have recollection of seeing the test apparatus before it was run.

The Court: And you saw some metal that appeared to have been welded to the casing, is that it?

The Witness: Yes, sir, I believe so.

The Court: In the form which you describe here as a lug?

The Witness: Yes, sir. Not only that, but this is the usual form of oil-field practice, of welding a rod to easing of that form.

The Court: For what purpose?

The Witness: Oh, for the purpose of holding any scratcher in position on the casing.

The Court: Well, at the time of this test, was there a practice of welding a welding rod to a casing for any [2228] purpose?

The Witness: I can't think of any practice usually, I can't think of any practice right at this moment.

The Court: Is there any issue as to it at all?

Mr. Scofield: There certainly is an issue as to whether or not this was welding rod. I don't think there is any indication in this record or even in the Exhibit X that this was a welding rod that was wrapped around there. That is, it was a rod of some sort, from the picture, evidently.

The Court: Some piece of metal.

Mr. Scofield: That is it.

The Court: Does it matter whether it was welding rod or some other rod?

Mr. L. E. Lyon: Your Honor, insofar as concerning the testimony of Mr. Barkis, it is in evidence and he testifield that it was welding rod and it was welded to it, and his testimony is in evidence.

The Court: Isn't this much ado about nothing?
Mr. Scoffeld: I think it is much ado about nothing.

The Court: Let us drop it then. Proceed.

Q. (By Mr. L. E. Lyon): There is only one question I have, and that is, was there any significance in the welded material being placed always at the top or at the bottom of the welding rod and not within the confined space of the two [2229] rings or lugs?

A. Yes, there was a reason.

Q. What was that significance?

A. To permit free travel of the scratcher between the confining rings.

The Court: To prevent it from becoming wedged against the metal inside?

The Witness: From binding.

The Court: From binding, is that right?

The Witness: Yes, sir.

Mr. Scofield: We will stipulate to that.

The Court: Very well.

Mr. L. E. Lyon: I will accept the stipulation.

Q. Now, Mr. Barkis, were the scratchers that were used in these tests freely rotatably mounted upon the casings of the tests?

A. Yes, they were.

The Court: As exemplified by the physical exhibits——

Mr. L. E. Lyon: CF and IIII.

The Court: Is that correct?

The Witness: That is correct.

- Q. (By Mr. L. E. Lyon): Now, Mr. Barkis, I will hand you two photographs which are in evidence as Defendants' Exhibits AC-1 and AC-2, and will ask you if you are familiar with the structures shown in these photographs. [2230]
 - A. Yes, I am.
 - Q. What do these photographs show?
- A. They represent the mounting of the Jones test apparatus alongside a tank at Dominguez Hills.
- Q. And I notice on the top of one of these tanks in Exhibit AC-1 there is a man standing, pulling on a rope. What is he doing?
- A. He is raising and lowering the 3½-inch casing inside the outer test cylinder.
- Q. That is, he is raising and lowering the easing of which Exhibit CF is intended to simulate a part, is that correct?

 A. That is correct.
- Q. Now, you have testified that you sold scratchers of the form of Exhibit FFFF. To whom did you sell such scratchers?
- A. We sold scratchers of this form to Thomas Kelly & Son, at Rosecrans Field.
 - Q. When? A. In December of 1939.
 - Q. And how many of such scratchers were sold?
 - A. My recollection is that there were over

twenty. Twenty-three, I believe, is the correct figure.

Mr. L. E. Lyon: I will ask the clerk if he can give me Exhibits HHHH and JJJJ. [2231]

Q. I place before you a photostat of a document heretofore received in evidence as Exhibit HHHH and will ask you if you can identify that document, and if so, will you tell me what it is?

A. That is an invoice of B & W, Inc., to the Union Oil Company of California.

Mr. L. E. Lyon: This is the wrong one. This is not HHHH. Pardon me. Just strike that.

There is an error here somewhere. What has happened to this list? This is not the correct one for HHHH.

Pardon me, your Honor. The list and the exhibits do not match here. It is taken from their list.

Now, let me see our own list. See if you can find the right one.

In the meantime, let me see Exhibit SSSS while you are at it.

Q. I place before you, Mr. Barkis, a photostatic document heretofore received in evidence as Exhibit JJJJ. Can you identify that document? If so, will you do so?

A. It is a check from Thomas Kelly & Son, dated February 5, 1940, for \$174.13, made out to B & W, Inc.

Q. Was that check received by B & W?

A. Yes. It was.

- Q. That check is endorsed on the back. Who is it endorsed by? [2232]
- A. It is endorsed "B & W, Inc., by K. A. Wright."
 - Q. You recognize that signature, do you?
 - A. Yes, I do.
- Q. Was that check deposited to the account of B & W? A. It was,
- Q. And was that check received by B & W in payment for any particular device or devices, service or services?
- A. It was in payment for the scratchers that we used at the Thomas Kelly & Son well in the Rosecrans Field.
- Q. Now, you have testified that a certain scratcher, exemplified by Exhibit FFFF, was sold to Thomas Kelly & Son. When was that sale made?
- A. The job was made right at New Year's, December 30-31 of '39, which is when the sale was made.
- Q. When were the scratchers delivered to the job, do you know?
- A. The scratchers were delivered on the day the casing started in the well, which was December 30, 1939. [2233]
- Q. Did you have anything to do with or were you present with or were you present when the scratchers were delivered to the well?
 - A. Yes, I was.
- Q. Was anyone else with you connected with B & W?

- A. Mr. Wright and I went to the well, my present recollection is, and went in different cars. I just don't recall whether the scratchers were in his car or in mine, but we both went to the well for the purpose of installing the scratchers and assisting in the cementing of the casing.
- Q. Did you and Mr. Wright—and, as I understand it, it was on December 30, 1939—do anything with reference to installing these scratchers on the casing?

 A. Yes, we did.
 - Q. What did you do?
- A. We were told about where to put the scratchers on. We raised the joints of easing on blocks and slid the scratchers on the easing and helped in the general installation of the equipment.
- Q. How were the scratchers mounted on the casing?
- A. The scratchers were—the protectors were taken off the joints of easing, the scratchers were slid onto the easing. After they were positioned, welded lugs were put above and below each scratcher, restricting its travel.
- Q. Were the scratchers secured to the casing in any [2234] way?
- A. Yes. They were held between these lugs so that they could only travel the distance between the lugs, as similar to the scratcher mounting here on CF, Exhibit CF.
- Q. Were or were not the scratchers free to rotate on the casing?
 - A. Yes, they were. They could slide between the

lugs and the scratchers could turn on the casing, rotate on the easing between the lugs.

- Q. Did B & W publish at any time any instruction sheet with reference to the mounting of the scratchers on the casing? A. Yes, we did.
- Q. I hand you a document heretofore received in evidence, or marked in evidence as Defendants' Exhibit HH for identification, and will ask you if you can identify that document?
- A. Yes, I can. It is what we called our "Instructions for Installation of B & W Wall-Cleaning Guides."
- Q. Does or does not this Exhibit HH for identification illustrate the manner in which the scratchers were mounted on the easing in the Kelly job on December 30th of 1939?

 A. Yes.

Mr. Scofield: That is objected to as calling for conclusion, your Honor.

Mr. L. E. Lyon: It does not call for a conclusion. The [2235] witness has testified that he was there and put them on.

The Court: Is this a description?

Mr. L. E. Lyon: That is right.

Mr. Scofield: But not of the Kelly well, your Honor.

Mr. L. E. Lyon: The question was: Does this Exhibit HH illustrate the manner in which the scratchers were mounted on the casing at the Kelly well on December 30, 1939?

The Court: By illustrate, I take it you mean fairly describe?

Mr. L. E. Lyon: Illustrate and fairly describe.

The Court: Is there any reason why he should not be able to answer that? The document, as I understand it, was published by his company. Is that correct?

The Witness: Yes, that is correct.

The Court: If there is anything unfair about it, I would like to hear from you, Mr. Scofield. It just saves his repeating it. I take it he can refer to it. I suppose he wrote it. I don't know. He may have written it.

Q. (By Mr. L. E. Lyon): Mr. Barkis, you did write Exhibit HH, didn't you?

A. Yes, I did.

The Court: If he could read it, he could say this says it better than I could say it. We all have that experience, don't we, when we sit down and write out something carefully in the way of description it is better than extemporaneously. [2236]

Mr. Scofield: If he will commit himself to that stand, I will withdraw the objection.

The Court: Very well. Does it fairly describe? The Witness: It fairly describes the installation.

Q. (By Mr. L. E. Lyon): Now, Mr. Barkis, you have just testified that you wrote Exhibit HH. When was HH published by B & W, Inc., if it was?

Mr. Scofield: We will stipulate that.

The Court: What is the stipulation?

Mr. L. E. Lyon: What is the stipulation?

Mr. Scofield: That it was published by B & W.

Mr. L. E. Lyon: Well, when, is the question.

The Court: The date?

Mr. Scofield: Oh, there isn't any date on it.

Mr. L. E. Lyon: Well, that was the question that I asked the witness.

Mr. Scofield: I thought he asked him if they published it.

The Court: You may answer the question.

A. Early in 1940. My recollection is that it was completed in February of 1940.

Q. (By Mr. L. E. Lyon): And published at that time?

A. Yes, it was.

Q. And how was it published?

A. It was what I would call a black-line print on white [2237] paper just identical with this here.

Q. How was it distributed, if at all?

A. Oh, just handed out and a few mailed out.

Q. Was it used in any installations?

A. Yes, it was used generally, for the Wright scratcher was a new piece of equipment and the Exhibit HH was generally used for instruction to people how to mount the scratcher on the easing.

The Court: Was it established when Exhibit CR, the bulletin 101, was published?

Mr. L. E. Lyon: Yes, your Honor. It was stipulated that that was published before March 19 of 1940.

The Court: But it was not stipulated whether it was published——

Mr. L. E. Lyon: As to HH, it is not stipulated as to HH.

The Court: As to whether it was prior to the publication of Exhibit HH in February of 1940?

- Q. (By Mr. L. E. Lyon): Which was published first, Exhibit HH, or your Bulletin 101, Exhibit CR?
- Λ. This was published first and released. It is my recollection that some——
 - Q. By "this" you mean Exhibit what?
 - A. Exhibit HH.
 - Q. Was the first released? [2238]
 - A. It was.
- Q. All right. And then it was released before Exhibit CR, the Bulletin 101? A. That is correct.

Mr. L. E. Lyon: All right. I will offer Exhibit HH in evidence at this time, the document heretofore identified as HH for identification in evidence at this time as Exhibit HH.

The Court: Is there objection?

Mr. Scofield: No objection.

The Court: Received in evidence.

(The document referred to, and marked Defendants' Exhibit HH, was received in evidence.)

- Q. (By Mr. L. E. Lyon): Now, Mr. Barkis, you testified that you were present on December 30th when these scratchers were mounted on the Kelly well, and you have testified as to the mounting of the scratchers on the casing. Were you present when the casing was lowered in the well with the scratchers on it?
- A. Yes, I was. The scratchers were mounted on

the first several joints of casing, and it is my recollection that after, oh, 20 or 30 joints of casing were run into the well, that I left the well and that Mr. Wright stayed there.

- Q. When the 20 or 30 joints of casing were run into the well were all of the scratchers run into the well? [2239]
 - A. They were below the rotary table.
 - Q. Now, did you return to the well?
 - A. Yes, I did.
 - Q. When? A. The next morning.
 - Q. Was Mr. Wright still there?
 - A. He was still there.
- Q. What operation was being performed at that time?
 - A. They were in process of running the casing.
- Q. That is, they were still running in more casing?

 A. Still running casing and circulating.
 - Q. By running easing what do you mean?
- A. Well, a joint of casing, the top joint of casing is lowered until the elevators are just below the rotary table, slips are set around the joint of casing, the top joint.
- Q. Briefly, do you mean they were adding sections of easing?

 A. Adding sections of casing.
- Q. All right. Now, you said they were circulating. What do you mean by circulating? Does that mean that they were running the rotary mud into the well, pumping it into the well? [2240]

* * *

- A. It is my recollection they would run 10 joints of casing, put on a circulating head on top, connect up the hose and circulate mud down through the casing, up through the annulus. That was circulating the casing.
- Q. How far, to your knowledge, did they lower this easing and these scratchers into the well, do you know?
- A. The well had been drilling down through the producing section. Several hundred feet above the hole had been reamed to a certain size which was the cementing depth of casing, and the casing was run down very close to that depth, within a few feet, and that is where the casing was cemented.
- Q. Were you there when they completed the running of the casing into the well?
 - A. Yes, I was.
- Q. After they completed the running of the casing into the well what was done? [2241]

* * *

- A. The circulating or cementing head was put on the top joint of casing, mud-fluid was circulated. After a certain length of time, went ahead with the cementing operations, cement slurry was mixed and pumped to bottom and the well was cemented, the casing was cemented in the well.
 - Q. In the ordinary manner?
 - A. In the ordinary manner.
- Q. As far as you know was that easing ever removed from that well?

- A. No, it was cemented in solid. [2242]
- Q. Therefore the 23 scratchers are where?
- A. They are still in the casing on the bottom sections of the casing in the well.
- Q. I place before you a document, which I find has not heretofore been identified, which is Exhibit U in the public use proceedings, in which is supposed to be Exhibit HHHH. Erroneously, the invoice to the Union Oil Company was marked HHHH.

The Clerk: Thomas Kelly.

Mr. L. E. Lyon: Well, this is Thomas Kelly, the one that I am placing before you now. I think you had better put the HHHH on the right one to correspond with that list, not on the wrong exhibit. Both lists say that HHHH is the invoice to Thomas Kelly Company. The HHHH identification is placed on a copy of an invoice to the Union Oil Company.

The Court: What should the invoice to the Union Oil Company be marked?

Mr. L. E. Lyon: I think that is already marked a letter exhibit. Which one is that?

The Court: Is it agreed that the marking may be changed?

Mr. Scofield: Yes, sir. I agree that the HHHH, the invoice of the Thomas Kelly B & W scratchers dated January 24, 1940, shall be marked as HHHH.

Mr. L. E. Lyon: And that is in evidence, I believe. As indicated by your list, it is in evidence, isn't it? [2243]

The Court: It was received in evidence on November 25th.

Mr. Scofield: On November 25th, according to my markings.

The Court: Very well.

- Q. (By Mr. L. E. Lyon): I have placed before you a photostatic copy of a document heretofore marked Exhibit HHHH and will ask you if you can identify that document, Mr. Barkis?
- A. Yes, I can. It is an invoice of B & W. Inc., to Thomas Kelly & Sons dated January 24, 1940.
 - Q. For what equipment, if any?
- A. For 23 wall-cleaning guides for 65/8; A.P.I. casing.
- Q. And you have testified with respect to this Thomas Kelly & Sons job on which you were present. Does this invoice have any relation to that job?
- A. Yes, this is the equipment that was used on that job and was covered by the check, the payment of this invoice is covered by the check that I have already testified to.
- Q. The difference between the amount of the invoice and the amount of the check, do you have any explanation for that or know of any explanation for that?
- A. Well, there was a two per cent cash discount here shown on the items on this invoice.
- Q. There was a two per cent cash discount taken from [2244] the sum of this invoice in the sum of the check, is that correct?

- A. Yes. That would amount to \$3.50 or a little more. [2245]
- Q. (By Mr. L. E. Lyon): * * * Following this Kelly well, Mr. Barkis, were sales of scratchers made to anyone else, your Honor, by B & W?
- A. Yes. I recall early sales to the Union Oil Company.
- Q. And do you recall what wells those scratchers were used on, or where the wells were located?
- A. The wells were located in the Rosecrans field and in the Dominguez Field.
- Q. I place before you a document heretofore marked in evidence as Exhibit SSSS and maybe I had better have the original because of this error that happened before. I will ask if you can identify that particular document, Mr. Barkis?
- A. Exhibit SSSS is an invoice of B & W, Inc., to the Union Oil Company of California dated March 4, 1940.
 - Q. For what type of equipment? [2246]
- A. For two wall-cleaning guides for seven-inch A.P.I. casing.
- Q. Do you recall the form of wall-cleaning guides sold on that invoice?
- A. It is my recollection that it is the form of scratcher shown in Bulletin No. 101.
- Q. Is there a scratcher of that form in evidence here, Mr. Barkis? If so, will you look at the scratchers here in a box and see if you can identify

a replica of the scratchers that were sold on the invoice Exhibit SSSS.

- A. The scratchers of that invoice Exhibit SSSS were of the type shown in Exhibit 104.
- Q. I hand to you and ask you to look at Exhibit TTTT in evidence, which is also in the book, and will you tell me if you can identify that exhibit and tell me what it is for?
- A. That is a purchase order of the Union Oil Company of California, No. 9602, dated March 1st, 1940, for two seven-inch B & W wall-cleaning guides that were invoiced in Exhibit TTTT.
- Q. Now, I will hand you and ask you to refer to Exhibits RRRR and QQQQ also in that same book and ask you if you can identify those two documents and tell me what those are? They are in the same book, aren't they?

 A. What numbers?
 - Q. QQQQ and RRRR. [2247]
- A. Exhibit QQQQ is a check voucher from the National Supply Company.
 - Q. Dated what date?
- A. With the memorandum date, March 10th, covering the invoice of February 24th, 1940, for \$27.
- Q. Now, there is a certain handwriting on this particular document Exhibit QQQQ. Whose handwriting is that?
 - Λ. That is my handwriting.
 - Q. When was that handwriting placed on there?
- A. It was placed on there at the time the check was received.

- Q. Was this invoice for one of the very first sales of B & W wall-cleaning guides?
 - A. Yes. It was.
- Q. Do subsequent invoices for wall-cleaning guides carry your own handwriting on them, or documents with reference to them carry your own handwriting on them?
 - A. Quite often I might make a memorandum.
 - Q. Even today? A. Even today.
- Q. Now, you have stated that this is a voucher of a check. What did you mean by that?
- A. It carries the notation "Voucher No. 25,-829" and the statement, "Our check is tendered herewith in payment of your account as follows," and it shows that the check [2248] was received and entry made.
- Q. Well, did you detach this voucher off from the check?
- A. Yes. It is my recollection that it was attached to the check.
 - Q. What did you do with the check?
 - A. It was deposited.
 - Q. In the bank? A. Yes, it was.
- Q. Now, what is the document, Exhibit RRRR, Mr. Barkis?
- A. Exhibit RRRR is a similar check voucher but it is from the Union Oil Company, covering material invoiced to Union Oil Company on March 4, 1940, purchase order No. 9,602, which is the same transaction that I have already testified to.
 - Q. For the Union Oil Company?

- A. Yes, for the Union Oil Company.
- Q. And this is the check voucher off the check in payment of the two scratchers, then, that is shown on invoice number, exhibit what?
 - A. Exhibit SSSS.
- Q. Now, I notice on Exhibit QQQQ a notation placed on there under the words "Not Negotiable" of "Rosencrans 38, Dominguez 75, Both N.S." something. What does that mean? [2249]
- A. That isn't the correct reading. It is "Rosecrans 38 Dominguez 75," or "76," "Both W.S.O." That refers to water shut-off, both water shut-off.
- Q. And what do the "Rosecrans 38" and "Dominguez 75" mean?
- A. It would refer to the wells on which this equipment covered by this check voucher would have been used.
- Q. I will ask you to refer to two other documents, Mr. Barkis, Exhibits XXXX and YYYY, and explain to me what those documents are?

A. Exhibit XXXX——

Mr. Scofield: That has been withdrawn, your Honor.

Mr. L. E. Lyon: Wait a minute. Exhibit YYYY has been withdrawn. That is what I am trying to check here.

Mr. Scofield: Exhibit YYYY has been withdrawn.

Mr. L. E. Lyon: XXXX has not been with-drawn.

The Court: According to my notes it has been withdrawn,

Mr. Scofield: Yes, sir, but XXXX and YYYY.

Mr. L. E. Lyon: Let me ask one question.

The Court: If there is any doubt about it, ask the clerk.

Mr. L. E. Lyon: Let me ask the witness one question:

Q. Does it refer to the work done on Bulletin 101, Mr. Barkis?

Mr. Scofield: I object to that. If the exhibit is [2250] withdrawn, I don't see why he should testify.

Mr. L. E. Lyon: Well, I am trying to straighten out my record.

The Court: Overruled. You may answer.

A. Yes, it does.

Mr. L. E. Lyon: It is withdrawn, then. All right.

Q. I hand to you Exhibits Λ, AF and AG for identification. I believe they are in that book, Mr. Barkis, or are they?

The Clerk: They are here, Mr. Lyon. This is it.

The Court: According to my notes, Exhibit AE has been withdrawn.

Mr. Scofield: Yes, Exhibit AE is withdrawn.

Mr. L. E. Lyon: Exhibit AE is withdrawn.

At this time, your Honor, in view of the fact that the deposition of A. L. Siegel has been received in evidence, I will offer in evidence—

The Court: As what exhibit?

Mr. L. E. Lyon: It is received in evidence as Defendants' Exhibit BZ-10.

The Court: The deposition of A. L. Siegel?

Mr. L. E. Lyon: Yes.

The Court: S-i-e-g-e-l.

Mr. L. E. Lyon: I will offer in evidence Exhibits AF and AG as they are identified in that deposition, as exhibits [2251] to the deposition QQ and RR, respectively, that is, their identifications in the Siegel deposition, not here.

The Court: Is there objection to the offer?

Mr. Scofield: No objection to the offer-

The Court: They are received in evidence.

Mr. Scofield: Unless it is going to mess up our exhibits. There are Exhibits QQ and RR in.

Mr. L. E. Lyon: They are not offered as those. They are offered as the numbers that were given here, AF and AG, I believe.

Mr. Scofield: That is all right. I have no objection.

The Court: All right. Exhibits AF and AG for identification are now received in evidence.

(The documents referred to, and marked Defendants' Exhibits AF and AG, were received in evidence.)

Q. (By Mr. L. E. Lyon): I hand you two documents heretofore marked for identification as Exhibits WWW and UUU. I will ask you if you can identify those and if so tell me what they relate to, if anything.

The Court: According to my notes, the UUUU exhibit has been withdrawn and not the WWWW exhibit.

Mr. L. E. Lyon: These lists that I get certainly are not right.

The Court: According to my notes, Exhibit UUUU is invoice of Hal G. Davis Co., for wall-cleaning guide Bulletin [2252] artwork.

Mr. L. E. Lyon: That is withdrawn. If it is on wall-cleaning guide bulletin artwork, it is withdrawn. That wall-cleaning guide bulletin artwork date has been stipulated to.

The Court: Exhibit WWWW is invoice of Homer R. Dulin, apparently. It refers to work done under a work order which is Exhibit OOOO.

Mr. L. E. Lyon: Yes, OOOO, I want Exhibit OOOO, also, if I may have it. [2253]

The Court: And Exhibit PPPP is apparently a photostat of check in payment for that work.

Q. (By Mr. L. E. Lyon): Taking Exhibits OOOO, PPPP, and WWWW, together, can you identify the documents, Mr. Barkis?

A. Yes, I can.

Q. What are they, taking them in order?

A. Exhibit OOOO is a work order of the Homer R. Dulin Company dated January 10, 1940, and that refers to the preparation of the drawings for the instruction for installation sheet.

Q. Exhibit what?

A. Exhibit HH is my recollection.

Mr. R. F. Lyon: That is right.

Mr. L. E. Lyon: Let's see, now.

Q. Have you Exhibit HH in front of you there? If not, let us put it in front of you. Is that among your papers up there, Mr. Barkis? It is in your deposition, I believe. Exhibit HH, the small instruction sheet.

The Court: Exhibit HH is the sheet the witness referred to.

Mr. L. E. Lyon: The small instruction sheet, yes.

The Court: He referred to a sheet a few moments ago that he himself composed. [2254]

- Q. (By Mr. L. E. Lyon): That is the instruction sheet that you testified that you composed, yourself, Mr. Barkis?
 - A. Yes, that is correct.
- Q. All right. Now, that is Exhibit HH. Now go ahead. You say that Exhibit OOOO was for artwork for that bulletin, is that right?
 - A. For that sheet, not bulletin.
 - Q. Yes. A. For that installation sheet.

The Court: Exhibit HH?

The Witness: Exhibit HH.

- Q. (By Mr. L. E. Lyon): And that document, Exhibit OOOO, was received by whom and when?
- A. This is the work order of the Homer R. Dulin Company.
 - Q. Directed to whom, or addressed to whom?
- A. Well, it is their own office work order for work to be done for B & W. Inc.

- Q. I see. Now, who ordered that work done?
- A. I ordered the work done.
- Q. All right. Now proceed to the next document.

Mr. Scofield: What is the exhibit?

Mr. L. E. Lyon: PPPP, I believe.

Mr. R. F. Lyon: PPPP.

- Q. (By Mr. L. E. Lvon): PPPP. [2255]
- A. The invoice comes first before the payment of the invoice.
 - Q. All right.
- A. And I would refer to Exhibit WWWW as being the statement of Homer R. Dulin Company.
 - Q. Dated what date?
- A. This is the statement of February 29th for \$24.95.

The Court: What year?

The Witness: That would be 1940, shown at the top.

- Q. (By Mr. L. E. Lyon): To whom was that invoiced? A. To B & W, Inc., Long Beach.
- Q. All right. Now, on the face of that invoice there are certain—all right.

Now, what is Exhibit PPPP?

- A. Exhibit PPPP shows that the statement of the Dulin Company was paid by B & W check signed by Mr. Wright and myself, dated March 7, 1940, for \$24.95, which would be payment for the work done on the original job order.
- Q. And what relation, if any, does this check then have to the date of completion of Exhibit HH that you have testified that you prepared yourself?

- A. Well, the work order is dated January 10, 1940, and indicates to me that the work was completed prior to February 29th, as I testified, during the month of February, 1940. [2256]
- Q. Well, was the work delivered to B & W before it was paid for?
 - A. Yes, it was. [2257]

* * *

- Q. (By Mr. Lyon): Mr. Barkis, has B & W had any sales policy with respect to the sale of its equipment?

 A. Yes, it has.
 - Q. What has been that sales policy?
- A. The sales policy is to distribute equipment to oil companies or suppliers on an established basis. Most of the equipment is sold through supply companies; some equipment is sold to oil company purchasers.
- Q. Has that policy had anything to do with the manner of sale of the equipment itself? Upon what basis is the equipment sold in accordance with that policy?
- A. Well, the equipment sometimes is delivered to a supply company who in turn delivers the equipment to the ultimate user. Other times the equipment is delivered to the well on the request of the oil company and the equipment is installed and field service provided. Other times equipment is sold to supply companies for their maintenance of field stocks.
- Q. What has been the company's sales [2260] policy with respect to patents and patented items?

A. The proposition of patents, or, I will put it this way: To try to sell equipment on patents is poor sales practice. We had patents but the equipment was not sold on that basis, definitely.

Q. Is that part of your sales policy?

A. It was our established policy.

Q. In accordance with that policy did you go to an oil company and tell them you had equipment and it was patented, and, therefore, you wanted them to buy it?

A. Definitely not.

Q. Did you mention the patents?

A. Yes. There were periods when there were inquiries as to whether we owned patents, and in answer to the inquiries we told them we did own patents.

Q. Did you make any reference to patents to customers where they did not make inquiry with reference to patents?

A. No, we did not.

Mr. Scofield: What was the answer, please?

(Answer read by the reporter.)

Q. (By Mr. L. E. Lyon): Has that been your established policy since the formation of B & W, Inc.?

A. Yes, it has.

Q. And is that still your policy today?

A. It still is. [2261]

Q. Now, Mr. Barkis, you heard Mr. Hall's testimony, I believe, with respect to the sale of some centralizers to the Gulf Oil Company. I am going to refer you to Volume 12 of the transcript of the record in this case, pages 1362 and continuing on

through page 1368. I want you to be sure that you have fully that testimony in mind. And in connection with that testimony there was offered in evidence Exhibits 186 to 192, inclusive, which exhibits I will place before you at this time.

- A. I believe I am familiar with Mr. Hall's testimony.
- Q. With that testimony; all right. There are two exhibits over here, 188 and 190, both of which state, "The latch-on centralizers" on their face. I am placing those in your hands and will ask you if those are true exemplars of the tags used by B & W?
- A. Yes; these were the marking tags that were placed on our centralizers at that time.
- Q. Were any other tags used on centralizers at that time?

 A. No. No, there were not.
- Q. Did you ever have a tag which stated that the centralizer was a spiral centralizer?
- A. Not to my recollection we ever had a tag with "spiral centralizer" on it.
- Q. Did you ever have a tag which stated that the [2262] centralizer was a straight-bow centralizer at that time?
 - A. Not at that time. We do have now.
- Q. Was the same tag used upon both the straight and spiral centralizers at the time of this transaction with the Gulf Oil Company?
 - A. Yes. Yes, they were.
- Q. Without regard to whether it was a straight or spiral centralizer, is that correct?
 - Λ. Yes, that is correct.

Q. All right. Is there anything on any of these exhibits, 187, 189, 191, or 186, or any other item of these exhibits, including Exhibit 192, the photograph, that would indicate whether or not the centralizers sold were straight or spiral centralizers?

A. The Exhibits 187, 189, 191 are shipping tags and show no indication that the centralizer was a spiral centralizer.

Q. Did any of your shipping tags at any time show a difference between spiral and straight-bow centralizers? And by "any time," I mean at this time. Did you ever have a shipping tag that showed a difference?

A. No, they did not. Exhibit 186 is identification tag of Nu-Coil scratchers for placement on the crate holding the scratchers. [2263]

The Exhibit No. 192 is a photograph and it does show a picture of the spiral centralizer of the B & W.

Q. (By Mr. L. E. Lyon): Now, do the records of the B & W show the sale to the Gulf Company that has been referred to in this testimony, and by that I mean the sale of centralizers which were sold to the Gulf Oil Company, Goldsmith lease, in Texas, in about August of 1950?

A. Yes, they do.

Q. Was that sale made through a supply company?

A. No. At that time our sales were being made directly to Gulf Refining Company or Gulf Oil Company, I don't recall which.

Q. And do you have the sales records of the centralizers which were sold to the Goldsmith lease in August or September of 1950?

A. Yes, we do.

Mr. L. E. Lyon: I have shown these invoices to counsel for plaintiff and I will ask that they be marked at this time as defendants' exhibits next in order. What is the next number?

The Clerk: DP.

Mr. L. E. Lyon: To be marked Defendants' Exhibits DP-1, DP-2, DP-3, and DP-4 for identification.

The Court: They may be so marked.

(The documents referred to were marked Defendants' Exhibits DP-1, DP-2, DP-3, and DP-4, respectively, for identification.) [2264]

- Q. (By Mr. L. E. Lyon): Were the particular centralizers which were sold to the Gulf Oil Corporation for use at the Goldsmith lease sold to them on invoices calling for spiral centralizers?
 - A. Yes. They were.
- Q. I place before you documents which have been marked Defendants' Exhibits DP-1, DP-2, DP-3 and DP-4 and I will ask you if you can recognize those documents?

 A. Yes, I can.
 - Q. What are they?
- A. They are copies of the original invoices to Gulf Oil Corporation.
- Q. What acquaintance do you have with the invoices of B & W, Mr. Barkis?

- A. I am entirely familiar with them.
- Q. Well, do you follow them closely?
- A. Yes, I do.
- Q. Daily?
- A. I won't say daily, but several times during the month I have occasion to review them and check them.
 - Q. You review all invoices? A. Yes, I do.
 - Q. How long has that practice been common?
- A. I would say since the corporation was started, that is, in the area that I am in, which is Houston. I am [2265] not entirely familiar with the detail of the California invoices, but I am with the Houston invoices.
 - Q. Are these invoices out of the Houston office?
 - A. Yes, they are.
 - Q. Exhibits DP-1 to DP-4?
 - A. Yes, they are.
- Q. Now, just explain to me what the invoice, Exhibit DP-1, is for and to whom it was sold and what it calls for.
- A. Exhibit DP-1 is Invoice No. 7672-H. It is dated September 26, 1950, and is to the Gulf Oil Corporation at Fort Worth, Texas, and covers equipment delivered to them on their Order No. A-98589, for their Well No. Goldsmith No. 96. I might question that number. I think there may be a clerical error in there. In my opinion it should be 596, because I am familiar with the numbers of the wells that are drilling or were being drilled at that time.

Q. Go ahead.

A. The terms show "Net." The invoice covers four B & W Latch-on Centralizers, 7-inch spiral bow, at \$32.00, a total of \$128.00, and 18 B & W Nu Coil scratchers for 7-inch API casing, at \$6.25, for a total of \$112.50. It shows a total of \$250.50, less 15 per cent discount, leaving a net total of \$204.42. There is a notation on the bottom, "Delivered to you Goldsmith, Texas," August 31, 1950. "Our delivery ticket No. 3991." [2266]

Q. What does that mean?

A. It means that the equipment was delivered to the well location in Goldsmith by us and was covered by that delivery ticket.

Q. All right. Now, will you similarly tell me what Exhibit DP-2 is, for identification?

A. It is a similar invoice, dated August 25, 1950, for equipment delivered to Goldsmith Well No. 587-56, covering 18 B & W Nu Coil scratchers for 7-inch API casing, at \$6.25, for a total of \$112.50, and four B & W Latch-on Centralizers, 7-inch spiral bow, at \$32.00, \$128.00, net total \$204.42.

Q. On Exhibit DP-2 there is a note on the bottom of that. Will you read that note and tell me what that means?

A. It says, "Delivered to you, Goldsmith, Texas," July 28, 1950, "our Delivery Ticket 4196," and there is the same explanation as the one given for delivery regarding the notation above.

Q. Now, will you similarly turn to Exhibit DP-3

(Testimony of Bruce Barkis.) and tell me what Exhibit DP-3 for identification covers?

A. It is an invoice, No. 7433-H. dated August 25, 1950, for Well No. Goldsmith 590-56, covering 18 B & W Nu-Coil scratchers for 7-inch API casing, at \$6.25, for a total of \$112.50, and four B & W Latch-on Centralizers, 7-inch spiral bow, at \$32.00, \$128.00, a net total of \$204.42, [2267] and the delivery notation on the bottom is, "Delivered by A. J. Flowers," who was our serviceman in that area at that time, on "7-28-50, our Delivery Ticket No. 4197."

Q. All right. Now, similarly, will you tell me what is covered by Exhibit DP-4 for identification?

A. An invoice of August 17, 1950, Invoice No. 7389-H for Well No. C. A. Goldsmith, et al., No. 589-56, for 18 B & W Nu Coil scratchers for 7-inch API casing, at the same amount, and four B & W Latch-on Centralizers, 7-inch spiral, at \$32.00, with the same amount and the same net total of \$204.42, and the delivery notation, "Delivered and Installed by Earl Stanger," who had also been located in the west Texas area, "at Goldsmith, Texas," on August 5, 1950, "Our Delivery Ticket No. 3979."

Mr. L. E. Lyon: I will offer in evidence the four documents heretofore marked for identification as Defendants' Exhibits DP-1, DP-2, DP-3 and DP-4, and I will describe those four exhibits as being invoices to the Gulf Oil Corporation for spiral centralizers and Nu-Coil scratchers delivered

to the Goldsmith lease of the Gulf Oil Corporation in July and August of 1950.

Mr. Scofield: May I see Exhibit DP-1, please? Mr. L. E. Lyon: You can see them all.

Mr. Scofield: May I ask Mr. Barkis if this Exhibit DP-1 indicates the well that the equipment was sent to? [2268]

Mr. L. E. Lyon: He has already so testified.

The Court: Is it so stipulated?

Mr. L. E. Lyon: Yes. He has testified that in his opinion it went to Well No. 596 of the Goldsmith lease.

Mr. Scofield: Is that your testimony?

The Witness: Yes, it was, but I notice in this record here that—

The Court: Which record?

The Witness: The transcript of the proceedings of November 23rd, that the reporter had designated "Well 598." I didn't read it thoroughly. I didn't have time to read the record thoroughly, but there is reference in here to "598."

Mr. Scofield: That is my objection, your Honor.

The Court: What is the correct number?

The Witness: My recollection is that Mr. Hall testified to Well No. 596.

Mr. Scofield: Exhibit 192, your Honor, has to do with the Gulf Oil Corporation's well, Goldsmith lease, of No. 598. Now, none of these invoices have to do with that particular well.

The Court: Was there a well No. 596?

Mr. Scofield: 598, your Honor.

The Court: Was there a 596?

Mr. Scofield: That I do not know.

The Court: What is the point? [2269]

Mr. Scofield: My point is that what they are offering here are invoices of equipment that was sent to wells of the Gulf Oil Corporation, but they have not produced any invoice of equipment that was sent to the well that Mr. Hall testified about and from which he—

The Court: That is a matter of argument. Do you object to the offer?

Mr. Scofield: I object to the offer, yes, sir.

The Court: Upon what ground?

Mr. Scofield: Upon the ground that the invoices do not cover the equipment sent to the well.

The Court: Objection overruled. They are received in evidence.

(The documents referred to, marked Defendants' Exhibits DP-1, DP-2, DP-3 and DP-4, respectively, were received in evidence.)

Q. (By Mr. L. E. Lyon): Mr. Barkis, did B & W, from your examination of the records, sell any other centralizers to the Gulf Oil Corporation during the period of time covered by these invoices, other than by these invoices, for use at the Goldsmith lease?

The Court: And these invoices being—

Mr. L. E. Lyon: Exhibits DP-1 to DP-4, inclusive. [2270]

Λ. I didn't understand the question.

- Q. The question was: Did your company sell to the Gulf for use on the Goldsmith lease any centralizers other than those shown by Exhibits DP-1 to DP-4, inclusive, during that period of time?
 - A. Yes, it is my recollection that we did.
 - Q. During that period of time?
- A. During that period. These invoices were selected as just typical invoices of that period and were not complete. There were other sales made.
 - Q. To the Goldsmith lease?
 - A. To the Goldsmith lease.
 - Q. All right. Where are the other invoices?
 - A. They are in the records at Long Beach.
 - Q. Are these typical of those invoices?
 - A. Yes, they are. [2271]

* * *

- A. The notation on the back of this shipping tag shows "Well 596 Gulf, August 31, 1950."
- - Q. Well, there is one here, that is, Exhibit 191.
- A. On the back of Exhibit 191, the shipping tag shows: "Removed from shipping crate at 598, 9-1-50."
- Q. All right. If there is an invoice for delivery to Well 598, you will produce it?
 - A. Yes; we surely will. [2273]

Q. (By Mr. L. E. Lyon): Mr. Barkis, in that sale of scratchers or your equipment of B & W during the years 1940, '41, '42, '43 and up until September 15, 1944, do you recall any mention of patents in the trade in connection with sales?

A. No, I don't recall. I don't have any recollection of any mention and discussion of patents. No, sir, I don't.

Q. Did that position remain that way after September 15, 1944?

A. Well, it reached a time when there was very considerable amount of discussion about it, but immediately after '44, I don't recall that there was any evonversations or discussions about patents.

Q. For how long after September 15, 1944, did this same condition exist that there was no discussion in the sales field with respect to your equipment of patents?

A. Well, the discussion came sharply to a head in the [2274] early part of 1947.

Q. You say it came sharply to a different position in the beginning of '47?

A. Yes, it did.

Q. What was your experience with respect to sales at that time? And let me ask you this: Are you active in the selling of this equipment yourself?

A. Yes. That is my major interest.

Q. Has that always been true since the beginning of the formation of B & W?

A. Yes, that is true.

- Q. All right. Now will you please answer the other question: What you observed as a sharp differentiation in that position beginning with January or in the first of 1947?
- A. Well, I was asked many times whether we owned patents, and observation was made that Weatherford Spring Company or Mr. Hall had patents, and questioned as to whether we had patents.
- Q. Was reference made to any particular statement or publication by the trade in asking that question to you?
- A. Yes. As soon as the Weatherford Spring Company had come out in the Oil Weekly and as soon as their first catalogue was released in 1947, why, there were a lot of questions about it.
- Q. What ads and what catalogues are you talking about, [2275] Mr. Barkis?
- A. The ads in the catalogue were the ones that carried the Wright patent number under the Weatherford scratcher. I have in mind the white-covered catalogue, Mr. Lyon, instead of this.
 - Q. Exhibit L, I believe? A. Yes.
- Q. Exhibit L. I place before you Exhibits FFF, FFF-1, and Exhibit L, and will ask you which, if any, of these catalogues are the ones that you were referring to?
- A. I was referring to Exhibit L and to Exhibit FFF-1. The Oil Weekly has wide circulation in the oil fields and when this publication was released

that was the start of a lot of inquiries about patents.

- Q. Were you asked-pardon me.
- A. And this Exhibit L was released at about the same time, and it was either the ad in the Oil Weekly or the release of Exhibit L, which caused the inquiries.
- Q. Were you asked in these inquiries as to what this patent was that Hall claimed?
 - A. Yes, I was.
 - Q. And what did you state?
- A. Well, I told those people that inquired that it was a patent, a Wright patent that had been assigned to B & W, Inc., and it was owned by B & W, Inc. [2276]
- Q. And did they ask why was Hall advertising it?

 A. Yes. Yes, they did.
 - Q. And what was your reply to that?
- A. Well, I would tell them I didn't know the particular reasons for putting our patent number under that. And that would generally bring the next inquiry: "Is he licensed"? And I would refer to the contract of September 15, 1944, and say that he was licensed in that contract, and that would be about it.

Mr. Scofield: Would you read that answer, please?

(Answer read by the reporter.)

Q. (By Mr. L. E. Lyon): Now, prior to this time of this inquiry, I believe that you had had

some dealings with the Shell Oil Company with respect to patents. Will you explain fully that dealing?

Mr. Scofield: Will counsel give the date of the inquiry, or about the date?

Mr. L. E. Lyon: Well, I will ask the witness for the dates.

Q. The Shell Oil Company dealings?

A. We contacted Mr. Bates of the Shell Oil Company——

Q. When was that first, Mr. Barkis, about when?

A. My recollection, it was along in June of 1946.

Q. What was your purpose in contacting Mr. Bates of the Shell Oil Company? [2277]

A. Well, at that time he was mechanical engineer and had to do with equipment; and we approached him or contacted him to determine whether Shell Oil Company was interested in taking a license under our patent. And that was the reason for the contact.

Q. Did you have a business policy behind trying to get the Shell Company to take a license under your method patents?

A. Well, we had asked Mr. Maxwell for his advice, and his advice was that we license companies under the method so that they could use any equipment that they would purchase.

Q. And did that advice have anything to do with

(Testimony of Bruce Barkis.)
your approach to the Shell Company and Mr.
Bates?

- A. Yes, that was the reason for approaching him.
- Q. All right. Now, did you at that time ask the Shell Company through Mr. Bates, if they were interested in taking a license?
- A. Yes, we did. And he asked us to prepare material that he could review to help in forming some decision as to what the Shell's policy would be on it.
- Q. Did you prepare such material and submit it to Mr. Bates as he requested?

 A. Yes, we did.
- Q. And that is set forth in a letter, that material is set forth in a letter that you wrote to Mr. Bates, is it [2278] not? A. Yes, it is.

Mr. L. E. Lyon: I will ask that the clerk produce Exhibits BQ, BR, BS. They are loose letters.

Q. I place before you three documents, Mr. Barkis, heretofore received in evidence—are they?

They are not marked on their face as received in evidence, but they are on the list.

The Court: Are BQ, BR and BS in evidence? Mr. Scofield: Yes, sir. They are in evidence on November 25th, my list shows.

The Court: What do your records show, Mr. Clerk?

The Clerk: Yes, your Honor, that agrees with my records, November 25th.

The Court: They are not marked in evidence?

Mr. L. E. Lyon: No. They are marked for identification, your Honor.

The Court: I suggest you hand them to the clerk now and he will mark them in evidence. According to my notes, Plaintiff's Exhibits 16 and 17 are in some way involved.

Mr. L. E. Lyon: Yes, your Honor. I would like to have 16 and 17 also.

The Court: Along with Exhibits BQ, BR and BS, apparently a chain of correspondence.

- Q. (By Mr. L. E. Lyon): I place before you Exhibits [2279] BQ, BR and BS, and ask you if you are familiar with these letters, Mr. Barkis?
 - A. Yes, I am.
- Q. Has any of these letters any relationship to this request that you state that Mr. Bates made to you for an outline of what you desired to submit to the Shell Oil Company?
- A. Yes. This Exhibit BQ is a letter addressed to Mr. Bates from myself and refers to that meeting.
- Q. BQ starts out: "Since our recent meeting." Does that in any way enable you to fix the date of that first meeting with Mr. Bates, that you had with Mr. Bates, that letter?
- A. It is my recollection that it was a week or 10 days before this letter was written.

The Court: Upon what date?

Mr. L. E. Lyon: This letter was written on— The Witness: There is no date shown on this letter.

Mr. L. E. Lyon: The letter was written on July——

The Witness: July 8, 1946.

Mr. L. E. Lyon: July 8, 1946, although that date is not set forth on the copy of Exhibit BQ.

The Witness: That is correct.

The Court: Is that agreed?

Mr. Scofield: Yes, sir; I entirely agree with that. I don't think the copy shows, but I think that is about the [2280] time that it was written.

- Q. (By Mr. L. E. Lyon): Now, these letters, Exhibits BS and BR, are they letters in that same chain of correspondence that started from this July 8, 1946, letter, Exhibit BQ?
- A. Yes, they are. The letter, Exhibit BR, is dated October 20, 1947, and is addressed to "Mr. B. J. Gratama," of Shell Development Company, and it has reference to the letter of Exhibit BQ. And Exhibit BS is the letter of October 29, 1947, from Mr. Gratama, addressed to B & W, Inc., my attention, and refers to the letter of Exhibit BR.
- Q. I hand you Plaintiff's Exhibit 16, which apparently is a photostatic copy of a letter dated July 8, 1948, and will ask if you wrote that letter also, if that is the letter that you wrote to the Shell Company on that date. Is it the same as BQ except for the date, Mr. Barkis?
- A. Yes, it is. That is an identical letter except for the date at the top.
 - Q. Connected to Plaintiff's Exhibit 16 are some

(Testimony of Bruce Barkis.) additional pages. What are those pages, Mr. Barkis?

- A. Those are the pages showing the Shell Oil Company's usage of B & W wall-cleaning guides as referred to in the letter of Exhibit BQ, and the last sheet is a bibliography of the cementing and completion attached to the letter.
- Q. Now, Mr. Barkis, I would like to have you also [2281] look at Plaintiff's Exhibit 17 and will ask if a copy of that letter was supplied to you by Mr. Gratama. I will see if there is any indication of it.
- A. No, sir. I never saw this letter until it was introduced in the public use proceedings. That is my recollection.
- Q. All right. Now, I also call your attention to the letter of October 29, 1947, addressed to B & W, to you, by Mr. Gratama of the Shell Development Company, Exhibit BS, and will ask you if that letter, to your knowledge, concluded the correspondence with respect to your efforts to license Shell Company under your method patents?
- A. Yes, it did. This letter refers to a meeting with him in——
- Q. That letter asks him for a meeting. Did you have such a meeting subsequent to that letter?
- A. No, I have never met Mr. Gratama. I had no meeting subsequent to this letter.
- Q. Did you take up with any other oil company, other than Shell, the question of licensing

any other oil company to utilize your method patents, Mr. Barkis, other than the Shell?

- A. It seems to me that in discussion with Mr. Toussaint of the Standard Oil that there was some reference to licenses. It is my recollection that the correspondence is in exhibits here. [2282]
- Q. Well, did you take up this same question of policy with the Standard Oil, with Mr. Toussaint of the Standard Oil Company, of licensing that company under your method patents so that they might purchase equipment where they saw fit?
- A. That would be the program that would have been submitted to any company.
- Q. Well, were you any more successful in getting the Standard Oil Company of California to consider taking such a license?
 - A. No, no. We had no success at all.
- Q. Did you have success in offering licenses under these patents to any oil company so that they might buy their equipment where they saw fit?

 A. No. No company was interested.
- Q. Now, Mr. Barkis, you were present, were you not, at a meeting had at the California Club in August of 1946?

 A. Yes, I was.
 - Q. Who were present at that meeting?
 - A. Mr. Scofield, Mr. Wright, and myself.
- Q. And that meeting, I believe, was held on or about the 22nd of August, it began on or about the 22nd of August, 1946?
 - A. It is my recollection it was on August 22nd.
 - Q. Will you state precisely what was said and

done, [2283] as nearly as you can remember, the precise conversation? If you cannot remember it, give the substance of the conversation had at that time and at that place between all parties present?

Were there any other people present besides, yourself, Mr. Wright and Mr. Scofield?

- A. Those are all that were present.
- Q. All right. Proceed.
- A. Mr. Scofield reviewed the contract of September 15, 1944. He was very critical of it. He commented, I would say, extensively about the contract and then submitted an amended contract or a supplementary contract to Mr. Wright and I.
- Q. Before he submitted that contract, did he make any statement as to who he thought he was representing at that time?
 - A. No. He did not.
- Q. Did he make any statement with reference to who he was representing before the Patent Office at that time?
 - A. Yes. He stated that he represented Mr. Hall.
- Q. Go ahead. A. He—
- Q. You stated that he presented this amended contract. What did he say when he presented that amended contract?
- A. Well, he said, "You gentlemen execute this contract and I will turn over to you this new patent application that I have filed." [2284]

We had learned sometime before that the patent application No. 388,891 had been abandoned, and

Mr. Wright asked Mr. Scofield, he said, "Why was that abandoned"?

And Mr. Scofield said, "I have filed a new application and there is new material in this new application, and if you sign this, execute this amended or supplementary contract, why, then I will assign this application over to B & W, Inc."

- Q. Was there any statement or any questions asked with respect to who owned that application?
- A. Yes, there was. Mr. Wright asked Mr. Scofield who owned No. 627,013, this new application.
 - Q. And what did Mr. Scofield state?
 - A. And Mr. Scofield said, "We own it."
 - Mr. Scofield: Who do you mean by "we"?
- Q. (By Mr. L. E. Lyon): Is that what Mr. Scofield stated?
- A. Meaning or referring to client, Mr. Hall, that was my interpretation of it.
- Q. Now, was there any demand or ultimatum given to you and to Mr. Wright at that meeting with respect to the execution of this so-called modified or supplemental agreement?
- A. Yes. It was my understanding that if we didn't execute that contract, that this new application would not be assigned to B & W, Inc. [2285]
 - Q. Was there any other statement made?
- A. Yes, one, I think: he said that if it was not executed, he would advise his client, Mr. Hall, not to pay any further royalties.
 - Q. Anything else?

- A. And that he considered the contract of 1944 abandoned.
- Q. Anything else? Was any statement made with reference to bringing suit against you?
 - A. That is right.
 - Q. And what was stated in that regard?
- A. That suit would be brought, it is my recollection, for declaratory relief.
- Q. And did you state your position with respect to the signing of this supplemental agreement?
- A. Yes, we did. We told him we didn't intend to execute it.
- Q. When did you make that statement, on that day, on August 22nd?
- A. No, I don't believe so. Mr. Wright and I discussed that when we left the meeting, and it is my recollection that the next day Mr. Wright picked up some of the documents or files on the patent applications and then returned them, and it is my recollection that that word was given to Mr. Scofield at that time. [2286]
- Q. Well, you said "that word was given" to him at that time. What word did you mean?
- A. The word that we did not intend to execute the amended agreement.

Mr. Scofield: That was given the following day? The Witness: It is my recollection that it was several days after, Mr. Scofield; that it was over a week end, as I recall.

Q. (By Mr. L. E. Lyon): Subsequent to that meeting, did you ever have any further discussion

with Mr. Scofield with respect to the demands and ultimatums made at that meeting and answered by you as you have stated, and by "that meeting" I mean that series of meetings that started on August 22nd and continued through, I believe, August 27th—is that correct?

A. That is correct, the meetings.

Q. I mean after that, did you ever discuss this matter again of these ultimatums and this demand to execute the supplemental contract, with Mr. Scoffield?

A. It is my recollection that I only saw Mr. Scofield the one day during that series of meetings, and the papers were delivered by Mr. Wright to Mr. Scofield after the week end.

Q. Well, after this week end, did you ever discuss with Mr. Scofield again the subject matter discussed at that [2287] August, 1947, conference?

A. I have no recollection that I personally had any further discussion with him——

Mr. Scofield: 1946.

Mr. L. E. Lyon: 1946 is right.

A. (Continuing): —after 1946.

Q. (By Mr. L. E. Lyon): All right. When, to your knowledge, did B & W first approach the Gulf Oil Company or the Gulf Research and Development Company with reference to the sale of B & W scratchers to that organization or its organized companies?

A. I first approached the Gulf in 1940 on the

Gulf Coast, the Gulf Oil Company on the Gulf Coast.

- Q. Whom did you approach there?
- A. I approached Mr. Joe Russell, who was in charge of production operations on the Gulf Coast at that time.
- Q. Did you endeavor to sell scratchers to the Gulf through Mr. Russell at that time?
- A. Yes, I did. He called in several of his superintendents. It was decided to run some B & W wallcleaning guides on a field test, and that was done.
- Q. Where?
- A. Well, there were several wells included in the North Thompson field, in the Anahuac field, and those jobs were run at that time. [2288]
- Q. All right. Subsequent to that, did you again approach the Gulf Oil companies with reference to the sale of scratchers to the Gulf Oil companies?
- A. Yes. We made continued sales approach to the Gulf in the field.
- Q. Did you approach the Gulf Research and Development Company? A. No, I did not.
- Q. Did Mr. Wright, to your knowledge, approach the Gulf Research and Development Company?

 A. No, not until 1946 or later.
- Q. All right. To your knowledge, then, you state that Mr. Wright did approach the Gulf Research and Development Company in 1946 or later. Whom did he approach, to your knowledge, at that time, in the Gulf Research and Development Company?

A. It is my recollection that he discussed cementing problems, cementing techniques, with Teplitz of Gulf Research in 1946.

Q. At what time, do you recall?

A. It is my recollection it was in the spring sometime.

Q. Did anything, to your knowledge, result from that contact of Mr. Wright with Mr. Teplitz, with respect to the sale of your tools to the Gulf Oil Company?

A. No, I don't recall that there did. [2289]

* * *

Q. (By Mr. L. E. Lyon): You testified a few moments ago as to knowledge received by your company with respect to the abandonment of the Hall application or a Hall application or applications. How did you obtain that knowledge, Mr. Barkis?

A. There were certain assignments that were sent to the Patent Office for recording——

Mr. L. E. Lyon: May I have Exhibit AI?

A. (Continuing): —and we got word through a letter from the Chief Clerk of the Patent Office that the Hall application had been abandoned, and asked for further instruction.

Mr. L. E. Lyon: Have you a copy of Exhibit

Mr. R. F. Lyon: Here it is.

Q. (By Mr. L. E. Lyon): I place before you Exhibit AI in evidence, and will ask you if this is the letter that you referred to in your last answer?

- A. Yes. That is the letter I referred to.
- Q. Was this the first advice that you had of the fact of the abandonment of Hall applications?
 - A. Yes. It is.
- Q. Is it correct to say that you had no other information with respect to the abandonment of these applications until this meeting in August, August 22, 1946, had then between yourself and Mr. Scofield and Mr. Wright? [2290]
 - A. That is correct.
- Q. That is, at no time were you notified by either Mr. Hall or Mr. Scofield that they had abandoned these applications?
 - A. No. We were not advised.
- Q. When did B & W place upon the market the scratcher which has been referred to here as the Multiflex scratcher?
- A. The Multiflex scratcher was released in the late fall of 1947. [2291]

Q. (By Mr. L. E. Lyon): You have stated that the Multiflex scratcher was brought out in the fall of 1947

Just one moment.

Was this scratcher, the Multiflex scratcher, being offered for sale then, at the time of a conference had in the Ben Milam Hotel in Houston, Texas? Is that correct?

A. Yes, it was.

Q. At that time was there any discussion had? Who was present at that conference in the Ben Milam Hotel?

- A. There were Mr. Hall, Sr., J. E. Hall, Jr., Mr. Scofield, Mr. Caughey of Lyon & Lyon, Mr. Wright and myself.
- Q. All right. Now, at that conference was there any discussion had with reference to the Multiflex scratcher? When was that conference, first?
- A. My recollection is that it was in the latter part of January, 1948.
- Q. Do you have any memorandum or other document that you have in mind that would fix the date of that conference, Mr. Barkis? [2292]
- A. No. I can't think of any correspondence that would fix it.
- Q. Your statement is that it was in the latter part of January, 1948, is that correct?
- A. That is correct. My recollection is that it ran for two days in the Ben Milam Hotel and it was along in the latter part, I would say the 20th, 21st, 22nd, somewhere in that period.
- Q. Now, at that conference was there any discussion had of the Multiflex scratcher?
 - A. Yes.
- Q. What was said and by whom and who was present at the time of that conference, when that conversation took place?
- A. My recollection is that it was on the first day or shortly after we met.
- Q. Was there more than one discussion had of the Multiflex scratcher in that two-day conference?
- A. Yes, I believe it was mentioned, but my recollection is that shortly after we met, Mr. Scofield questioned Mr. Wright and I about our sales

of Multiflex scratchers, and he said that in his opinion that the Multiflex was an infringement of certain Hall claims. [2293]

- Q. Was the substance of that conversation repeated more than once during that two-day conference?

 A. Yes, sir, I believe it was.
- Q. Were all of the parties present that you have named during one or more times during the time the substance of that conversation was repeated at that two-day conference?
- A. It is my recollection that Mr. Hall, Sr., was only there the first day. He wasn't there—I am sure that he wasn't there the second day. But the rest of the people that I named were in attendance at the meeting.
 - Q. On the second day?
 - Λ . At all other times that we met together.
- Q. In your recollection was Mr. Hall, Sr., present when this Multiflex discussion was first had?
 - A. Yes, he was.
- Q. Now, Mr. Barkis, you brought out another scratcher here referred to as the Nu-Coil scratcher. When was the Nu-Coil scratcher first placed upon the market?
- A. It is my recollection that it was offered for sale first along about November of 1949, possibly December of '49.
- Q. So that we may be certain that we are talking about the same type of structure I place before you Plaintiff's Exhibit 72. Is that the correct specimen of Nu-Coil scratcher as sold by B & W? [2294]

A. Yes, it is. It is a seven-inch B & W solid Nu-Coil scratcher.

The Court: When was it first offered to the trade?

The Witness: Either November or December of 1949.

The Court: And the Multiflex scratcher alluded to, is that Exhibit 57?

The Witness: Yes, sir.

The Court: The Nu-Coil was brought out about a year later?

The Witness: No, it would be three years later.

Mr. L. E. Lyon: Two years later, I think your arithmetic of both is wrong.

The Witness: Excuse me

The Court: November or December of 1949?

The Witness: Yes, sir.

- Q. (By Mr. L. E. Lyon): Mr. Barkis, has your company at any time taken the position with any oil company that it would bring suit against such oil company or customer under any letters patent held by your company?
 - A. No, it never has.
- Q. Has it consistently advised the oil companies to the contrary?
 - A. Yes, that has been our policy.
- Q. You have answered inquiries from the oil companies with respect to your patents, have you not?

 A. Yes, we have. [2295]
- Q. Does that include inquiries which you have received from the Gulf Oil Company?

- A. Yes, they have inquired about our patent situation.
- Q. And I believe, as far as the evidence shows, a telegram which you sent to the Gulf Oil Company, and that telegram is in evidence——

Mr. Scofield: 19.

Mr. L. E. Lyon: As Plaintiff's Exhibit 19. May I have Plaintiff's Exhibit 19, please?

- Q. I place before you Plaintiff's Exhibit 19, Mr. Barkis, and ask if you can explain the circumstances surrounding sending of that wire, if there were any, and give me fully what transpired with the Gulf Oil Company at that time?
- A. As stated in the telegram, the Gulf Oil Corporation was buying equipment for South America. We discussed this with our counsel and anything that is in this telegram was given with that instruction or advice in mind.

Mr. Scofield: Who was the counsel then, Mr. Barkis?

The Witness: It is my recollection, in 1947. Mr. Decker was the counsel.

- Q. (By Mr. L. E. Lyon): What is the rest of his name, do you recall?
 - A. Harold Decker.
 - Q. J. Harold Decker of Los Angeles?
 - A. Yes, that is correct. [2296]
 - Q. He is in the general practice of law, is he?
 - A. Yes, he is. That is my understanding he is.
 - Q. Did you have a conference with the Gulf

Oil Company at that time with reference to these orders, or any official of the Gulf Oil Company?

- A. Shortly following this—this telegram shows the date April 12, 1947—in June of 1947, Mr. Wright and I went to Pittsburgh and met with the Gulf Research people.
 - Q. Who did you meet there?
- A. Well, I am sure that Westcott, Vollmer and Teplitz were in the meeting with Mr. Wright and I, and I believe that Mr. Kennedy, Dr. Kennedy, was also in the meeting.
- Q. Was Mr. Houghton there, of the patent department of the Gulf Oil Company?
 - A. No. No, he was not.
 - Q. Not at that first meeting?
 - A. Not at that meeting.
 - Q. When was this meeting held?
- A. It is my recollection the date of it was June 17 of 1947.
 - Q. June 17 of 1947?
 - A. Yes, I believe that is correct.
- Q. And what was said by any of the parties present at that meeting?
- A. Well, it was rather a lengthy meeting and Mr. [2297] Wright and I went to Harmarville in the morning, had lunch with the Gulf people, had further discussion for a couple of hours. All together I would say we talked for around three or four hours.
 - Mr. Wright and I told them we were very in-

terested in trying to get some of Gulf's business and it was on that basis that we were there.

- Q. Did you try to get the Gulf Research and Development Company to make tests of your equipment at that time?
- A. Yes. We reviewed with them the fact that we had this wall-cleaning guide. Mr. Teplitz stated that he was familiar with the device. And then we told them that it was our advice that we were in a position to offer them this coiled spring type wall-cleaning guide.
- Q. What did they say? Did they accept or state that they would or would not purchase the wall-cleaning guide?
- A. They were firm in that. They stated that they would not purchase the wall-cleaning guide.
 - Q. Why? Did they state why?

Mr. Scofield: What exhibit is that?

The Court: Can you identify that by exhibit?

Q. (By Mr. L. E. Lyon): The wall-cleaning guide that you are referring to is exemplified by Exhibit 104, is it?

A. That is correct.

The Court: They told you they would not purchase that? [2298]

The Witness: Yes, sir.

The Court: Did they tell you why?

The Witness: Mr. Teplitz had reviewed the Gulf's usage of that equipment, and also he had made a few inquiries from companies that were using the device.

The Court: Is this what he told you?

The Witness: Yes.

The Court: What did he tell you? He said, "I won't use your equipment because"?

The Witness: He said, "Because I have checked into it and I won't recommend it to my company."

The Court: "Because"?

The Witness: "Because I don't believe—I don't believe it will—well, I don't believe that its performance is adequate."

- Q. (By Mr. L. E. Lyon): Did you offer the Gulf Company at that time any other equipment?
 - A. Yes, we did.
 - Q. What other equipment?
- A. We advised them that we were in a position to furnish them with coiled spring type wall-cleaning guides and made the offer to them of that device.

Mr. Scofield: Will you identify that by exhibit number, please?

- Q. (By Mr. L. E. Lyon): Did you offer them the device [2299] like Plaintiff's Exhibit 88 at that time?
- A. Yes, it is my recollection that we made them that offer at that time.
- Q. Did you have that device available there at that time, or did you state that you would submit samples?
- A. It is my recollection that we did not; that we said that we would send them samples of the equipment.
 - Q. Does that cover the sum and substance of the

(Testimony of Bruce Barkis.)
conversation had at that time and place, Mr.
Barkis?

- A. Yes, that is the important part.
- Q. You are familiar, I believe, with the testimony of Mr. Houghton, who testified that you had assured the Gulf Company that you would not bring suit against them. Was it at that conference that you gave them that assurance?
- A. I believe Mr. Wright and I made that offer at that time. Yes, I believe that is so.
- Q. All right. Now, did you have any later conferences with the Gulf Oil Company officials or the Gulf Research and Development Company with respect to the sale of your equipment to that company?

 A. Yes. Yes, we did.
 - Q. When?
- A. Well, our field contacts and sales contacts continued.
- Q. But you were still unable to sell them equipment? [2300]
 - A. But we couldn't sell them equipment, no.
- Q. All right. Did you have any other conference at Pittsburgh, any later conference at Pittsburgh at which you were present?
- A. No, I don't recall that I attended any more conferences in Pittsburgh that year or the following year.
- Q. Did you attend any conferences with Mr. Teplitz or Mr. Vollmer or any of the members of the Gulf Research and Development Company?

A. No, I don't recall that I made any further contact with them. [2301]

* * :

Q. And were those the entire subjects of conversation?

A. Yes, they were.

Q. Were patent questions raised at that conversation?

A. There was no discussion about patents at all. In April of 1948, Roland Smith and I visited Pittsburgh and contacted the Gulf Research and also the Gulf people in the purchasing department, and at that time we were trying to get Gulf's approval to the usage of the Multiflex scratcher and the centralizer; and that was our subject of our discussion at that time. There was no discussion about patents.

Q. Now, did you have any further contacts with the Gulf or Gulf Research Department?

A. Well, the next day, Mr. Smith and I went over to Washington and talked to Mr. Houghton, and we were asking for his assistance in getting an approval for the usage, field usage of purchases of B & W Multiflex scratchers.

Q. And who was Mr. Houghton?

A. He was the patent counsel.

Q. Located where? [2317]

A. In Washington, D. C.

Q. Who was present at that time?

A. Mr. Houghton and Mr. Littlehales of the Gulf Companies, and Mr. Smith and myself. [2318]

- Q. Where did that conversation take place?
- A. In Mr. Houghton's office. I don't recall the name of the building.
 - Q. In the Ring Building, wasn't it?
 - A. I don't recall.
 - Q. That was in Washington, D. C.?
 - A. Yes.
 - Q. When did this conversation take place?
- A. It was the day after we had visited with Gulf in Pittsburgh, in April, April 23rd of 1948.
- Q. Just give the substance of the conversation that was had at that time and place by all parties present.
- A. Well, I have stated that we were trying to get Mr. Houghton's assistance in getting approval for the field usage and purchases of the B & W Multiflex scratcher. And I recall in one instance Mr. Houghton was a little confused about the equipment and I told him that I would send him samples of that equipment, and when I returned to Houston I did ship up a centralizer and a scratcher and several pieces of equipment to him, which he later returned.
- Q. Have you given the full substance of the conversation had at that time?
 - A. That is all I recall of it.
- Q. Did you have any further contacts with the Gulf Company after that time? [2319]
- A. Well, the field testing of the Multiflex continued into south Louisiana, and Teplitz made several jobs on the Mississippi delta and I made those

jobs with him, and finally approval was given for the usage of the Multiflex scratcher.

- Q. And that approval was from a research standpoint, was it?

 A. Yes, it was.
- Q. Was any discussion had at that time with respect to patents?
 - A. No, sir. Teplitz and I did not discuss patents.
- Q. All right. Did you have any further contact with the Gulf?

 A. Well, that was in 1948.
 - Q. And by that I mean you personally.
- A. Normal sales contacts, contacting different field offices on purely sales matters.
- Q. In any of those conversations did the question of patents or notices of infringement or anything arise?
 - A. No, sir. That was not discussed.
- Q. There was no question raised at any of these sales meetings or no statement made by you with reference to patents of any kind, is that correct?
- A. That is correct. In 1950, after B & W had released the Nu-Coil scratcher, I contacted Mr. Joe Russell in his office in the Gulf Building at [2320] Houston.
- Q. Now, before, you were talking about contacts in 1949? A. In 1949, yes, sir.
 - Q. Now you are in 1950? A. That is right.
 - Q. Just so we have this record straight.
 - A. Yes.
 - Q. All right.
- A. I contacted Mr. Russell to see if the Gulf would use our B & W Nu-Coil scratcher.

- Q. Now, when was that?
- A. In March, 1950.
- Q. Where?
- A. At Houston, in Mr. Russell's office in the Gulf Oil Building.
 - Q. And who was Mr. Russell?
- A. He was the vice-president of production, or the head man on the Gulf coast for the production department of Gulf.
- Q. Was anyone else present besides you and Mr. Russell?
- A. No, sir. Mr. Russell and I were the only ones present in his office.
- Q. Will you give the substance of the conversation had between you and Mr. Russell at that time and place?
- A. I reviewed with him our list of scratcher and [2321] centralizer equipment, and told him of the work that Teplitz and I had done, in fact, that our equipment was on Gulf's approved list, and asked him for more extensive purchases of our equipment.

He referred me to Mr. Foster, Ed Foster, who was the head of the purchasing department on the Gulf coast for Gulf at Houston.

Q. Yes?

A. So I contacted Mr. Foster then, in the same building, in his office, and asked him for purchases of B & W——

- Q. Was that the same day at the same place?
- A. The same day at the same place, yes.
- Q. Were just you and Mr. Russell present?

- A. No. Mr. Foster and I.
- Q. I mean Mr. Foster and yourself.
- A. Yes.
- Q. The only ones present, now?
- A. Yes, in his office.
- Q. And you are giving the conversation had at that time?

 A. Yes, I am.
 - Q. O.K.
- A. I asked him for his purchase orders of our equipment. And Mr. Foster reviewed how much they had bought from us, and they had a list of purchases from different companies, [2322] and that was the sense of our conversation.
- Q. Did any question of patents or notices of patent infringement or threats arise at that meeting?
- A. No. The subject of patents was not discussed at all.
- Q. All right. Now, did you have any other contact with the Gulf Company in the year 1950, that you now recall?
- A. Well, just the usual and normal sales contacts in the field and in different division offices.
- Q. Did any questions of patents arise in any of these conversations that you had——
 - A. No, sir.
- Q. —with any official or employee of the Gulf Company?
- A. No. That subject of patents was not discussed at all.
 - Q. All right. Now, that covers the year 1950.

Now, how about the year 1951? You might engross that question and take the years 1951, 1952, and up until the present time, Mr. Barkis.

- A. There is no outstanding contacts in my mind that were made in those three years. Just the usual.
- Q. Did any questions or any discussions that you had with the employees or officials of the Gulf Company during those three years have anything to do with patents or notices [2323] of infringement or claims of any kind?
- A. I can't think of a single instance where there was any discussion about patents.
- Q. Did you have any discussion with any party in the Gulf Oil Company after January 12, 1952, with reference to the so-called \$2.50 royalty letter?
- A. I recall one instance of a visit to Pittsburgh, and I believe it was in 1950, where I did contact Mr. Cooke.
 - Q. Who is Mr. Cooke?
- A. Mr. Cooke replaced Mr. Houghton as head of the patent department.
- Mr. L. E. Lyon: May it be stipulated, Mr. Scofield, that Mr. Houghton is now deceased?

Mr. Scofield: I did not know that he was dead. I knew that Mr. Cooke replaced him.

Mr. L. E. Lyon: Yes. Well, he is now dead.

The Court: Do you stipulate to that, Mr. Scofield?

Mr. Scofield: Yes, I will stipulate.

The Witness: What was your question?

Q. (By Mr. L. E. Lyon): I believe I inter-

rupted your statement to find out if Mr. Cooke replaced Mr. Houghton, and that statement has been made.

The reporter will read the last question.

(Record read by the reporter.)

Q. (By Mr. L. E. Lyon): You had this conversation with [2324] Mr. Cooke. Who was present at that conversation?

A. I made just what I would term a social visit to Mr. Cooke, having been in Pittsburgh to contact the purchasing department.

And Mr. Cooke called Mr. Littlehales into the office and the three of us sat for five or ten minutes at the most.

Q. Was there a question of patents or notices discussed, or did you notify them?

A. No. There was no discussion of patents. It was merely a social visit, I would term it.

Q. All right. We were asking with reference to this \$2.50 royalty letter, and I will ask you if you had any conversation with the Gulf Company with respect to that letter, or with the Gulf officials or its employees?

A. No. I don't recall that the Gulf made any issue of that situation of the Scofield demand for \$2.50 royalty.

Q. I believe after the last session I had a further invoice marked for identification and I believe it was given to you. It was marked after we had all

left the courtroom. And whom did you give that invoice to, Mr. Barkis?

A. The secretary in back, so as to hand it to the clerk. It was a pink invoice.

Mr. L. E. Lyon: Did she hand you that invoice, Mr. Clerk? That is the one we are waiting for.

The Witness: I recall the number. It was Exhibit DQ. [2325]

Mr. L. E. Lyon: Exhibit DQ for identification.

The Clerk: Will you excuse me, your Honor, and I will look in the office for it?

The Court: Yes.

- Q. (By Mr. L. E. Lyon): At the last session of this trial, Mr. Barkis, the question was raised with respect to Wells 596 and 598 of the Gulf Company, and you testified, I believe, you had only looked for invoices with respect to Well No. 596, and I requested you to produce any invoices that you might have with respect to Well No. 598. Have you been able to find any such invoice?
- A. Yes, that invoice was found among the records, among the office records, and was brought up here to court.
 - Q. And marked Exhibit DQ for identification?
 - A. That is correct.
- Q. And how was that invoice found? Did you personally look for it, or did you make a call to the accountants?
- A. No. I just called our Long Beach office and told them to get that record, to get that [2326] invoice.

* * *

Q. (By Mr. L. E. Lyon): I place before you, Mr. Barkis, a document heretofore marked for identification as Defendants' Exhibit DQ, and I will ask you if you can identify this document?

A. It is a copy of an invoice from B & W, Incorporated, to Gulf Oil Corporation, Invoice No. 7673-H, dated September 26, 1950, for Well No. Goldsmith No. 598-56, covering "4—B & W Latch-on Centralizers, 7-inch spiral bow, at \$32.00," for \$128.00, and "18 B & W Nu Coil scratchers for 7-inch API casing, at \$6.25"; net amount, \$204.42, and there is typed thereon, "Delivered to You at Goldsmith, Texas, 8/31/50. Our Delivery Ticket No. 3992."

That is a copy of the original invoice to the Gulf Oil Corporation.

Mr. Scofield: Mr. Barkis, was that sold through a supply store to Gulf?

The Witness: It was sold directly as shown on the invoice.

- Q. (By Mr. L. E. Lyon): Were all sales to the Gulf Company at the Goldsmith lease at that time made direct to the Gulf Company as shown by these invoices, or were there sales made other than direct at that time? [2328]
- A. At that time all sales of B & W to the Gulf Oil Corporation, to the Goldsmith pool, were made direct to the Gulf Oil Corporation.

Mr. L. E. Lyon: I will offer the document heretofore identified as Defendants' Exhibit DQ for

identification, in evidence as Defendants' Exhibit DQ, and I will identify it for the record as Invoice No. 7673-H, dated September 26, 1950, on the Gulf Oil Corporation Order No. A-98587, Well No. Goldsmith No. 598-56, and sold to Gulf Oil Corporation, P. O. Drawer 1290, Fort Worth 1, Texas, and showing the delivery of four B & W Latch-on Centralizers, 7-inch spiral bow, at \$32.00, and 18 B & W Nu Coil scratchers for 7-inch API casing, at \$6.25.

Mr. Scofield: No objection.

The Court: It is received in evidence.

(The document referred to, marked Defendants' Exhibit DQ, was received in evidence.)

- Q. (By Mr. L. E. Lyon): Mr. Barkis, you have testified with respect to the Jones and Berdine report, I believe. Were you present at the A. P. I. meeting in the Biltmore Hotel when that report was read?

 A. Yes, I was.
 - Q. Was Mr. Wright also present?
- A. Yes; Mr. Wright and I attended the meeting together. [2329]
 - Q. How many other people were there?
- A. There were between six and seven hundred people that attended that meeting.
- Q. Were you a member of the A. P. I. at that time? A. Yes, I was.
 - Q. Have you held an office in the A. P. I.?
- A. Yes. I was chairman of the Division of Production for the Pacific Coast District in 1935 or 1936.

- Q. What is the A. P. I.?
- A. The American Petroleum Institute is a trade association of people in the oil industry.
- Q. Well, what do you mean by a "trade association of people in the oil industry"? Who are its members? What constitutes its membership?
- A. Its members are people who are directly connected with the oil industry, and one of the major purposes is for the exchange of information toward the more efficient production, refining, and marketing of oil and its products.
- Q. You say that there were six or seven hundred people present at this A. P. I. meeting held at the Biltmore Hotel. Was there any particular class of people that were there at that time? [2330]
- A. Yes. There were executives, supervisors, technicians, engineers, and that class of people.
 - Q. All connected with the oil industries?
- A. All either employees of oil companies or oil field service companies or consulting engineers or on that level.
- Q. This meeting was held at the Biltmore Hotel on what date?

 A. March 19, 1940.
- Q. Was a paper read at that meeting by Mr. Jones, Philip Jones?
- A. Well, he didn't read a paper. He presented a paper. The paper had been prepared, which is in evidence here, and Jones——
- Q. In evidence as part of Defendants' Exhibit X?
 - A. Yes; it is a part of that exhibit—and Jones

presented the paper but he didn't read word for word from the report.

- Q. How did he present the paper?
- A. It was an oral presentation. He had the subject well in hand and he presented it by throwing slides that are a part of the Exhibit X on the screen, and he then described the different test apparatus and the results and commented on it.
 - Q. Did he describe the equipment?
 - A. Yes, he did. [2331]
 - Q. How did he describe it?
- A. Well, in detail. Any of the important features of the equipment, why, I would say that Jones probably took 40 to 50 minutes in presenting the subject.
- Q. I place before you Exhibit X, Mr. Barkis, and I will ask you if Mr. Jones in his presentation of this matter before the API meeting on March 19, 1940, described the structures as shown in Figures Nos. 14, 18 and 26 of the Jones & Berdine report, and I will ask you to answer that question just yes or no.

 A. Yes.
- Q. All right. Now, how did he make that description?
- A. He had a pointer and as the slide was thrown on the screen—
 - Q. You mean he had slides?
- A. Yes; he had lantern slides of all of these photographs that are a part of this exhibit, and those were thrown on a large screen.
 - Q. Did he describe the equipment in detail as

shown by those lantern slides by the use of this pointer?

- A. Yes; he would point to the different features that were of importance and describe the different test apparatus.
- Q. With respect specifically to Figures 14, 18 and 26, did or did not Mr. Jones state at that meeting how the structures shown in those figures were mounted on the pipe as [2332] shown on the slides?
 - A. Yes, he did.
 - Q. What did he say?
- A. He said that the equipment was mounted on the casing so that it would slide or rotate, freely mounted on the casing between these retaining rings.
- Q. Did he describe how the retaining rings were put on the casing as shown by these photographs or the slides? And let me ask you, were the slides identical with the photographs, Figures 14, 18 and 26, or were they different?
- A. No; it is my recollection that all of these slides were included.
- Q. I am asking only one question, Mr. Barkis: Were the slides that were projected identical with the photographs appearing in Exhibit X?
- A. Yes; they were. They were made from the negatives of these photographs.

Mr. Scofield: I would like to ask an answer, too, to that compound question just before, as to how the devices, that is, the scratchers, were mounted on the casing, if he described that.

The Court: Will you answer that?

The Witness: It was my understanding—

The Court: How Mr. Jones described the mounting of the scratchers on the casing? [2333]

The Witness: It was my understanding that I had answered that question already.

Mr. Scofield: I believe there is a question unanswered, your Honor.

The Court: The witness states he understands he has answered it.

Mr. Scofield: No, he hasn't answered it.

Mr. L. E. Lyon: What was your answer, Mr. Barkis, so that we might proceed?

Mr. Scofield: Would you read the question, please?

Mr. L. E. Lyon: Read the question and answer, if you are going to do that.

The Court: Well, it is to satisfy you, not the questioner. You are interrupting this examination, Mr. Scofield, out of order.

Mr. Scofield: Yes, sir.

The Court: But I was permitting it in the interests of time. The witness, as I understood, stated that Mr. Jones had explained that the casing was mounted to rotate—I mean the scratcher was mounted to rotate freely on the casing between the retaining rings. I understood him to mean by retaining rings what we have referred to previously here as lugs; is that correct?

The Witness: Yes, sir; that is correct.

The Court: Is that your answer, [2334] substantially?

The Witness: That is a fair statement of my answer.

Mr. Scofield: I believe that Mr. Lyon then asked him if Mr. Jones in his lecture described just how the scratchers were mounted. I should like to have that question and answer read, if you please.

Mr. L. E. Lyon: Well, that is the question and answer that the court has just repeated.

Mr. Scofield: No, I don't think so.

The Court: Let us proceed. You may ask it on cross-examination if you are not satisfied with the record, Mr. Scofield.

Mr. Scofield: All right.

- Q. (By Mr. L. E. Lyon): Let us proceed specifically with reference to Figure 26, Mr. Barkis, of Exhibit X. And, as I understand your testimony, a slide of that figure was projected on a wall. About how big a projection was it?
 - A. I don't believe I said it was on a wall.
 - Q. Or on a screen. Pardon me.
- A. On some sort of a screen, and my recollection is that the screen was seven feet square, somewhere in that proportion.
- Q. All right. Now, Mr. Jones then took a pointer, if I understood your testimony, and pointed to the structure as shown on this Figure 26 slide and described just what was shown there. Can you repeat just what he said? [2335]

 A. He——
- Q. If you can't, say you can't, but give me the summary of it; or if you can say just what he said, give me just his words.

- A. I recall one thing that he mentioned, the balls on the ends of the wires was welded balls, mentioned that they were to prevent tearing of the canvas.
- Q. Is that in addition to what you have testified before with respect to this Figure 26 about its rotatability?
- A. Yes, that is true. I don't recall that I have ever testified about Jones' presentation of this device. I mean of this subject at the Biltmore.
- Q. Well, I mean that you testified right here a minute ago. I don't mean at some other time.
- A. That is correct. I have testified that the device is rotatable on this easing between these retaining rings, and the wires extend spirally from the scratcher, and that there are balls on the ends of the wires to prevent tearing of the canvas bag in the test apparatus.
- Q. Is that the summary of what Mr. Jones stated from the slide at the API meeting?
 - A. That is my recollection.
- Q. Similarly, did he make any statement with respect to the slides of Figures 18 and 14; and, if so, will you tell me? [2336]
- A. It is my recollection that he mentioned the end forming of the wires and was concerned about the canvas bag and the tearing of the bag; and he, in my recollection, commented on that in each of the structures.
- Q. Did he state that in Figures 14 or 18 or 26 structures that those structures tore the bag?

- A. No. He said that they did not.
- Q. How did he come to make this statement with respect to tearing the bag? Did he refer to any other structure?
- A. It is my recollection that he had referred to the first test when the wires had torn the canvas, and he used that reference then to explain the forming of the wires in these other figures, in Figure 14 and Figure 18 and Figure 26.
 - Q. Did he describe how those tests were made?
 - A. Yes, he did.
- Q. Using this structure at the API meeting on March 19, 1940?
- A. Yes. He discussed how the tests were made, thoroughly.
- Q. Did he have any slides there which showed the apparatus which was used, Mr. Barkis, in making the tests?
- A. I do recall, further, a slide of the test apparatus mounted against the tank, which is one of the exhibits here. I don't recall that he used that slide, but as far as the different test apparatus and the equipment and the results [2337] on the ground, the different cement billets, why, he was very complete in those.
- Q. You state that he did describe the tests that had been made using the apparatus of Figures 14, 18 and 26. Will you state what he described to the API meeting on March 19, 1940, with respect to those tests?
 - A. He would throw pictures or slides of the re-

sults of the usage of the equipment in 14, 18 and 26 on the screen and discuss the effectiveness of the cementing operation, of mud removal.

- Q. All right. I don't believe you got my question. Did he describe how the tests were carried out and what the apparatus was?
 - A. Oh, yes. Yes, he did.
- Q. Did that description follow or did it vary from the written description contained in the report contained in Exhibit X?
- A. I believe that it followed that rather closely, the same outline that is followed in the formal report.
 - Q. That is, of describing the apparatus used?
 - A. Describing the apparatus used.
- Q. Some method or manner, as described by Mr. Jones, of raising and lowering or reciprocating the casing during the time of the test. What form of means was used in making that reciprocation, to your knowledge, Mr. Barkis? [2338]
- A. There was a block and tackle used. This block and tackle, or the hook on that block, was attached to the upper end of the three and one-half-inch casing through a connection, and a man on the top of the tank would pull on the rope and that would move the casing on up and down about four feet.
- Q. I place before you Exhibits AC-1 and -2, Mr. Barkis, which are two photographs, and I will ask you if you can identify those photographs and if you can tell me what they are?

- A. They are photographs showing the mounting of the test apparatus next to the tanks in the Dominguez Field for the Jones & Berdine tests, and show the mud overflow chamber, the A-frame for handling the block and tackle that was used in moving the three and one-half-inch casing inside of the seven-inch test apparatus.
- Q. In Exhibit AC-1, Mr. Barkis, mounted or standing on top of the tank or on a platform on top of the tank is a man as shown in this photograph. What is that man doing?
- A. He is pulling on the rope of the block and tackle to move the three and one-half-inch casing up and down during the mud removal and cementing operation.
- Q. Just what was this test that was being carried on? Will you describe in detail the test and how it was performed and the structure in which it was performed, using these photographs where applicable or Exhibit X where applicable? [2339]
- A. The outer case of the test apparatus was a seven-inch o.d. cylinder about 15 feet long.
- Q. While we are at it, Mr. Barkis, in Exhibits AC-1 or -2 it might be well, where applicable, just to put a letter or indicating insignia on that exhibit which will point out the particular part that you are referring to. I will hand you a pen. You said there was a casing. Mark that casing on Exhibit AC-1 as part "B-1" and in subsequent enumerating of parts just continue the sequence with the letter "B" followed by the number.

A. There are four test apparatus shown here next the tank. I will mark the right-hand test apparatus. I have marked the seven-inch casing, outer casing, "B-1."

Q. All right. Now, on the top of that casing—

A. On top of the casing—

Q. Is what?

 Λ . —and as shown in Figure 1 of Exhibit X there is an overflow basin.

Q. All right. Mark that "B-2," will you, please?

A. I have marked it "B-2." The seven-inch casing is flanged throughout its length so that it can be disconnected from the overflow basin "B-2" and be laid on the ground. A portion of the seven-inch outer casing is perforated with small holes. My recollection is that they were about one-eighth-inch holes and very closely spaced. Some of the seven-inch outer casing was left blank. [2340]

Mr. Scofield: And during that answer, Mr. Barkis, you are referring to—

The Witness: Figure 1 of Exhibit X.

Mr. Scofield: Yes.

Q. (By Mr. L. E. Lyon): Now, Mr. Barkis, in this photograph, Exhibit AC-1, there is shown a pipe structure above the top of the second test apparatus, and what does that include?

A. That is the circulating head. That is also shown on the top of Figure—

Q. Can you mark on Exhibit AC-1 the circulating head? If so, mark it "B3."

A. "B3," and I have so marked it.

- Q. All right. Now, connected to the circulating head is what, on the outside of the test apparatus that is visible?
- A. Connected to the test head on the left-hand side of the third well from the right, the one which is marked "B3," is a circulating hose or a mud hose.
 - Q. All right. Will you mark that mud hose?
 - A. "B4"?
 - Q. "B4."

(The witness marks on exhibit.)

- Q. All right. Now, on the other side of that head there is also a hose, I believe. What is that hose, or is that a hose on the other branch of B3? [2341]
- A. It is rather indistinct. If there is, it would have been used for cementing.
- Q. All right. Let us mark that rather indistinct hose that has been referred to, that would have been used for cementing, as "B5."

(The witness marks on exhibit.)

- Q. All right. Now, connected to this head, at the top of it, is a block and tackle, is there not?
 - A. Yes, there is.
 - Q. Will you mark that block and tackle "B6"?
- A. And as shown in Figure 1 of Exhibit X there is an eye for the hook for the rope block.
- Q. All right. Just mark the eye "B6" then, and the block and tackle as "B7."

(The witness marks on exhibit.)

The Court: This drawing the witness is referring to is Figure 1 in Exhibit X, is it not?

Mr. L. E. Lyon: Yes, your Honor.

The Witness: Yes, that is correct. [2342]

Q. Mr. Barkis, you were explaining the Jones and Berdine experiments from Exhibits AC-1 and Λ C-2 and Exhibit X, describing the structure first and then its method of operation. Will you proceed with that description?

A. The hook of the block and tackle, B7, the hook being B6, was hooked into the eye on top of $3\frac{1}{2}$ -inch casing, the cementing head on top of the $3\frac{1}{2}$ -inch casing, and the man on top of the tank, by pulling on the rope, could raise the $3\frac{1}{2}$ -inch casing inside the stationary 7-inch casing which is marked here B1.

It is my recollection that the equipment was assembled on the ground and then raised alongside of the tank.

Q. What was assembled in each of the 7-inch casings [2366] numbered B1 on Exhibit AC-1, Mr. Barkis, what was the assembly?

A. The assembly consisted of the outer 7-inch casing, which was flanged, and then, inside of that, was a canvas bag.

Q. What was the purpose of the canvas bag?

A. The canvas bag was to simulate the wall of the well bore and to provide a means for building a mud cake on certain portions of the well bore.

After this assembly was put together and raised up alongside of the tank, mud fluid was circulated in through the hose B4 and through the circulating head and down through the 3½-inch casing, and then upward in the annulus between the 3½-inch casing and the canvas bag.

Q. For what purpose?

A. And up to the overflow basin, and then it returned from there through a line out to the mud pit again.

Q. For what purpose was this mud circulated?

A. The purpose was to simulate circulation in a well bore and to build a mud cake on certain sections of this test apparatus to simulate the subsurface condition in a well.

I mentioned the holes before in the outer casing. The combination of those holes and this canvas bag and the mud fluid circulating in the annulus in there provided [2367] filtration through the canvas bag, so clear fluid and the mud cake then, the solids of the drilling mud, would deposit on this simulated permeable section of the hole.

That was the purpose of circulating mud through the test apparatus.

Q. All right. Now, was anything done with this apparatus during the time of the circulation of the mud as you have described it?

A. It is my recollection that that circulated for quite a little period so as to build a mud cake, or filled it and allowed the well to set so as to build the

(Testimony of Bruce Barkis.)
mud cake on the perforated section after that was
done.

- Q. Then what was done?
- A. And one thing I think I overlooked was that the test apparatus that was to be tested was installed on this $3\frac{1}{2}$ -inch casing and put down into the apparatus before it was raised up alongside of the well, whether it was the Cosco guide or the B & W scratcher or Halliburton's spiral cleaner or any of the other test apparatus.
 - Q. All right.
 - A. It was circulated then for a certain period.
 - Q. What was circulated?
- A. Mud fluid was circulated through the system there until the engineers, Jones and Berdine, had established that there was an adequate cake on the simulated formation or on [2368] the canvas bag.

Then there was movement of the cake. If I could refer to the report, I could tell you.

- Q. You can refer to anything that is in front of you as part of Exhibit X.
- A. There are two tables here, Table 1 and Table 1 continued, of the Exhibit X.
- Q. And those two tables that you refer to are the tables that fold out of Exhibit X? [2369]
- A. That is correct; and those tables give the details of all the tests that were performed by Jones & Berdine. I will select one test marked "eight": "Test well 1: D.W. Shoe," which is the downwhirler shoe, which identifies it as being one of the Baker Oil tools "(80 per cent side ports)." That

indicates that 80 per cent of the fluid was going out through the side ports of the shoe and 20 per cent was going down.

- Q. Mr. Barkis, it might be better to take one of B & W's instead of Baker's.
- A. I am referring to Figure 26 in here, but the Baker equipment was used on the bottom of the shoe in the casing in all of these tests, and I believe the B & W tests were borne out.
 - Q. Pardon me.

A. There is "none" device on the casing, meaning that they were testing the effectiveness of the hydraulics or hydraulic means of removing mud fluid through the Baker device, there being three ways of taking mud cake off—hydraulically, chemically, and mechanically. And this is testing the hydraulic means of mud removal right at the shoe.

In test well 2 by means of "ditto," meaning that the same Baker shoe is used on the bottom; and under the middle section "devices on casing" shows that "wire wall scratchers (Fig. 26) 36" and 72" above shoe," shows that the B & W [2370] scratchers of Figure 26 were installed on the $3\frac{1}{2}$ inch casing 36 inches above the Baker shoe and 72 inches above the Baker shoe.

- Q. That is, then, there were two such scratchers used in that test?
- A. On that test there were two such scratchers mounted on the $3\frac{1}{2}$ inch casing.

Continuing over, just taking that particular test, the next column shows "Procedure after forming

mud cake" as the main column, and then three sub-columns. It says "Mud circulating period 17 minutes." That would indicate that after the mud cake, as I have testified, was formed, that mud fluid would be circulated through the system for 17 minutes.

- Q. Was any other operation performed during the circulation of that mud for the 17 minutes?
- A. I would have to refer back to the body of the report to show whether the casing was removed in that period.
 - Q. Well, will you do that? Don't you recall?
 - A. It is my recollection that they did.
- Q. Isn't it your recollection that that is what the purpose of this man standing up here with this block and tackle was?

 A. Was to move it.
- Q. To reciprocate the easing during that 17 minutes [2371] and during subsequent placing of the cement?
- A. That is my recollection; that the easing was moved during the mud circulation period and during placement of cement slurry.

Mr. Scofield: We will stipulate that, your Honor. Mr. L. E. Lyon: All right. Proceed, then.

A. The next sub-column shows that water circulating period was three minutes.

Q. What was that for?

A. Water was put ahead of the cement slurry. In other words, the mud fluid was circulated for 17 minutes and then water was pumped through

the system for three minutes during the travel of

- Q. Why do they pump the water through?
- A. It is sometimes done, and you realize that this is a cementing test and investigation to find out whether there is any added advantages of circulating water ahead of the cement slurry.
- Q. Go ahead. They were trying to determine if there was any advantage of any circulating water between the mud and the cement, then?
 - A. That is my interpretation of it.
 - Q. All right.
- A. The next column shows a column of slurry pumped in cubic feet, or shows on this particular test 16½ cubic feet.
- Q. That is the amount of cement that was placed in the casing then?
- A. Well, I don't know without doing a little arithmetic in here how much cement it would take to fill the annulus between the 3½ and the 7-inch casing. My impression is it would not be 16½ cubic feet but an excess was put on in.
- Q. And some of it probably pumped up in this—
- A. Into this overflow chamber and probably traveled on out through the system.

The next column shows the slurry velocity in the annulus in feet per second, and it shows that that on this particular test was $2\frac{1}{2}$. There is a subheading of "A." It says "with exception of run 11, test wells 2 and 4, in each mud velocity of the

annulus was about $2\frac{1}{2}$ feet per second." The velocities of mud to water pumped ahead of slurry were substantially the same as the indicated slurry velocities.

- Q. What does this word "slurry" mean? Is that a word used in this art?
- A. Yes, it is a very common word. Cement slurry is a mixture or mix of cement and water. It is fluid, has all the characteristics of a fluid, and is mixed with different weights with a certain amount of water. Usually the mix would be about one cubic foot of cement and seven-seven and one-half gallons of water. That is to make the cement [2374] pumpable so it can be handled by the cementing pumps and so that it will travel through the well system.
 - Q. All right, proceed.
- A. The next column is cement-water slurry, water ratio in per cent. It shows that a 50 per cent slurry was used.
- Q. That means half cement and half water, I take it?
- A. Well, a cubic foot of water and a cubic foot of cement would be 50-50, and a cubic foot of water would be about seven and one-half gallons of water, as I have testified.

The next column is "moving the casing in inches." It shows 42 inches. It shows that this man in Exhibit Λ C-1 would pull on this rope so as to move the casing up and down 42 inches.

Q. Was there any way he had of determining that he had moved 42, and not 40 or 44 inches?

- A. No, there was no rigid stops on it. It was a matter of his judgment, but he probably had some marker in there. It was in the range of 42 inches.
- Q. That is, it came within somewhere between 40 and 44 inches; that might be a reasonable estimate?
- A. I am sure of that. One thing I might comment about this method of raising in here. This hose is rigidly attached to this circulating or cementing head.
 - Q. You mean by that the hose B-4? [2375]
- A. B-4 is attached to the head B-3. The hook in the lower block, the traveling block of B-6 is hooked rigidly into the eye which is shown at the top of Figure 1, and in raising this apparatus up and down, the three and one-half inch casing up and down, why, it would travel straight up and down. There would be no possibility of the three and one-half inch casing turning or rotating inside of the test apparatus.

One other column.

- Q. Oh, pardon me.
- A. The last column in Table 1 continued shows that in this test that the mud viscosity was 26, which would be 26 seconds through the Marsh funnel.
- Q. These tests were made over what period of time, Mr. Barkis, do you recall?
- A. The tests were made in the fall of '39 and extended into the spring of '40, 1940.

- Q. In this Exhibit X, in the first eight pages of Exhibit X, which, as I understand it, was a report made to the Union Oil Company, on page 5 there is the statement: "These scratchers are relatively inexpensive, costing only \$7.50 each for seven-inch casing." Were you quoting and offering scratchers for sale to the Union Oil Company at the time of this report for \$7.50 each for a seven-inch size? [2376]
- A. This report is dated March 19th; the letter of transmittal is dated March 15, 1940, and at that time we were quoting the Union Oil Company seven-inch scratchers for \$7.50.
- Q. So that you were actually offering, were you not, the scratchers of this report to the Union Oil Company for \$7.50 each?

 A. Yes, we were.
- Q. This report and these tests, did they determine any factors for the B & W with reference to scratchers? I mean the work that the Union Oil Company did?

 A. Yes.
 - Q. What were those factors?
- A. So it is clear in my mind just what your question was, could it be re-read, please?
- Q. I said, did the work of the Union Oil Company determine for B & W any factors or anything at all with reference to scratchers?

 A. Yes.
- Q. Did you learn anything by these tests, in other words?

 A. Definitely we did.
 - Q. All right. What did you learn?
- A. To remove mud cake required abrasion of the formation, as shown by the—— [2377]

- Q. What do you mean by abrasion?
- A. I mean scratching the mud cake off of the formation.
- Q. Did it show you how that you could effect such abrasion?
- A. Yes, it showed that by contacting the wall of the well with the wires of the scratcher that the mud cake could be removed.
 - Q. Any part of the wires?
 - A. From the ends of the wires showed removal.
- Q. Did it teach you anything else with respect to these scratchers which B & W was making and had used in these determinations?
 - A. Well, yes.
 - Q. All right. What else?
- A. One thing that stood out, the test apparatus was seven inches in diameter and that would make the circumference of the hole within a range of 21 or 22 inches, and on the three and one-half inch wall cleaning guide as shown in Figure 26 there are 30 wires. If these scratchers moved up and down in the same plane, there would be incomplete removal of the mud from the wall of the hole, and it was shown in the results of these tests that it was complete mud removal, and that could only be accomplished by the device turning on the casing and the ends of the wires taking off the mud cake between the spacing of the wires on the [2378] device.
 - Q. Did it teach you anything else?
 - A. The corollary of that would be that if the

scratchers did afford complete mud removal in there, that the device did turn, rotate on the casing during the reciprocation or movement of the easing by the operator on the top of the tank.

Mr. Scoffeld: I move that that be stricken as not responsive, your Honor, and as volunteered.

The Court: Motion denied.

Q. (By Mr. L. E. Lyon): Proceed. Did it teach you anything else, Mr. Barkis?

A. Well, the results of the tests were satisfactory, very satisfactory. It showed that the removal of the mud cake from these sections where there had been a mud cake formed in the test apparatus was entirely satisfactory, from the photographs and from the conclusions of the report. Jones was very complimentary of the B & W equipment, and that is shown in the recommendations that he made to his company in there in the company report at the front of Exhibit X.

Q. With reference to Figure 26 did you learn anything with respect to that type of scratcher as compared with any other type of scratcher that you offered to Jones?

A. The performance of 26 was entirely satisfactory. As I have already testified, the trace of the pattern on Figure 27 shows that the markings on the outside of the cement billet, and those are interpreted—I interpret them [2379] as indicating that there was rotation of the scratcher on the three and one-half inch casing while the casing, three and one-half inch casing, was being reciprocated.

- Q. In Figure 26 which way do the ends of the wires extend, Mr. Barkis?
- A. Mr. Jones has described underneath the photograph: "Wire wall scratcher with wires bent spirally; outside diameter of scratcher slightly greater than inside diameter of this well." I would agree with him that the outer ends of the wires on the scratcher were bent spirally.
- Q. I place before you again Exhibit IIII, which is mounted on the piece of easing, aluminum easing, Exhibit CF, and I believe you have previously testified with respect to this exhibit and to the direction in which these wires extended. How do those wires extend from the easing or the collar which is mounted on the easing?

Mr. Scofield: That is objected to, your Honor. The device itself is the best evidence.

The Court: Doesn't it speak for itself?

Mr. L. E. Lyon: It probably does, your Honor.

The Court: Is that preliminary to something?

Mr. L. E. Lyon: Yes, your Honor.

The Court: He may state or estimate.

- A. The wires extend from the holding clip in which it is anchored, each wire extends from the holding clip in [2380] which it is anchored, through ten clips, and then the wire leaves the outer periphery of the collar at a sidewise angle.
- Q. (By Mr. L. E. Lyon): Well, may it be properly said that the wires extend at a sidewise angle from the collar?

 A. That is what——

Mr. Scofield: Objected to as leading.

The Court: Overruled.

A. That is what I believe I testified to; that is what it means. That is correct.

- Q. (By Mr. L. E. Lyon): Do you still use an have you at any time abandoned the use of a side wise extending wire from the collar of a scratcher Do you still use it?
- A. Yes, we do. We still offer the identical bod form of this wall-cleaning guide to the trade right now.

The Court: By "this one" you are referring t Exhibit?

The Witness: To Exhibit IIII.

The Court: Is that the correct designation of the wall-cleaning guide on the section?

Mr. L. E. Lyon: It is IIII, four I's, your Honor The Court: IIII.

- Q. (By Mr. L. E. Lyon): And in the form is which you offer that it is illustrated by Exhibit 104 is that correct?
- A. Yes. That is what I referred to when I said "the same body form is offered to the trade righ now." That scratcher is. [2381]
 - Q. The wires in Exhibit 104, are they sidewise
- A. The same forming exists in Exhibit 104 that exists in Exhibit IIII. The wires come through from the holding clip under 10 clips and then leave the collar at a sidewise angle and then extend into their outer form.
- Q. You have sold the form of scratcher of Ex hibit 104 for how many years now?

- A. 13 years.
- Q. Are you still selling it? A. Yes, we are.
- Q. In large quantities?
- A. In reasonably large quantities.
- Q. One of the orders going through the Houston shop when we were in Houston was drawn to my attention, was for how many wall-cleaning guides in one order?
- A. My recollection is that that shipment covered 210 scratchers, 200 of this form.
 - Q. Of the form of Exhibit 101?
 - A. 104.
 - Q. 104. And that was in May of 1953, was it?
 - A. That is right. [2382]

* * *

- Q. (By Mr. L. E. Lyon): Mr. Barkis, I hand you Exhibit DQ and refer you to the designation, to the well designated as "Well No. Goldsmith #598-56." What does "56" mean there?
- A. The Goldsmith property of Gulf Oil Corporation is very large. "56" refers to the block number.
- Q. Are there more than one well No. 598 in the Goldsmith lease?
- A. There is no question in my mind but what this is the well that refers to the photographs of the exhibits.
 - Q. Just answer the question.
- A. I don't know of any other Well No. 598 in the Goldsmith pool, in any of the block numbers.

It is my recollection that this is a large block. The date of delivery is shown here as being August 31, 1950.

- Q. I notice that this list of exhibits, DP-1 to DP-4, and DQ, are all directed to the Goldsmith lease sales, and in all cases except DP-1 have after them "56." Is there any explainable reason for that elimination of "56" from that invoice?
- A. None that I know of. It is a clerical omission, I am sure.
- Q. You were present, you have testified, at the March, 1940, A.P.I. meeting held at the Biltmore Hotel when Mr. Jones read the report; at the conclusion of that report was there any discussion, did you have any discussion with anyone? [2383]
- A. Well, following the usual practice there was some prepared discussion of the Jones-Berdine paper, I recall. It wasn't any lengthy discussion. I believe there were one or two questions from the floor, but the presentation had been so complete and thorough that there wasn't any lengthy discussion.
- Q. Did you have any discussion with reference to the report with anyone that you personally knew who was present at that meeting, do you recall?
- A. Yes. I recall after the meeting, A. H. Bell, Ham Bell, who was with the Continental Oil Company at that time and is now a drilling contractor in Southern California, came to me, and I had known him and had a long acquaintance with him, and he said, "Bruce, you sent me a copy of your

Bulletin No. 101 some time ago, a few days ago," and he said, "At that time I did not attach any significance, great significance to it, so I threw it away. And now," he said, "that I have heard Jones read his paper, I can see that it is important," and he said, "I wish you would send me some more copies of that Bulletin No. 101."

That was one discussion I recall.

Q. Any others that you can now recall?

A. Well, I would say that there was great interest in the paper, and following the meeting, in the corridor, there was just general discussion with some of the people that were there and knew that Mr. Wright and I were associated and had [2384] formed B & W, Incorporated, and had been working on this cementing problem.

That is about all I can recollect.

Q. Now, you have testified with reference to your contacts with the Shell Oil Company and the Gulf. Would you tell us with reference to your contacts with the Standard Oil Company of California, Mr. Barkis, and Mr. Toussaint?

A. In 1947, there was another A.P.I. meeting similar to the one that Jones had read his paper at in 1940. It was the Pacific Coast District of the Division of Production, the same, a portion of the American Petroleum Institute. And Jules E. Toussaint is one of the head men of Standard Oil Company, and he contacted Mr. Wright and I and told us that—well, we discussed cementing and he inquired about the patent situation, and we told

him that we had patents at issue, and he inquired about the contract that the Weatherford Spring Company was operating under, and then suggested, in fact, he asked, requested that we send information to him at San Francisco, and that was done. That was in 1947.

- Q. Did you have any other contacts with the Standard Oil Company?
- A. To my recollection, and I have thought about it, I can't think of anybody else in the Standard Oil Company that I have ever discussed patents with.
- Q. What was your purpose of discussing patents with Mr. [2385] Toussaint?
- A. Well, it was an outcome of his inquiry, I would say. He mentioned the Weatherford Spring Company advertising that had just been released a few months before that.
 - Q. What advertising do you refer to?
- A. I am referring again to that Exhibit L, that white catalog. That is the one that brought out a lot of inquiry about patents.
- Q. And that is the one which has the Wright Patent No. '317 under the figure of a scratcher, is that the one you are referring to?
- A. That is correct. That is the one that generated a lot of discussion or inquiries about patents.
- Q. Now, will you tell me as to any contacts which you had with the California Company?
 - A. The California Company is, according to my

understanding, a wholly owned subsidiary of the Standard Oil Company of California. It operates in the Louisiana Gulf coast and in the Rocky Mountains, and the head man of that company is Tom Flood. I have called on him. Deupree is the next man in charge of operations, and the chief engineer is a man by the name of Earl Kipp. I have talked to all of them, but to my recollection I have not discussed patents with any one of those three gentlemen.

Q. Where were they located, Mr. Barkis? [2386]

A. The headquarters of the California Company is at New Orleans, Louisiana.

Q. You say you have not discussed patents with any of those three individuals?

A. That is correct. I have approached them and asked them for their business and discussed the merits of our equipment with them, and the only man that I can recall that I mentioned patents to is a young engineer, a junior engineer by the name of Goerner.

Q. That is G-o-e-r-n-e-r?

A. That is correct. And on one trip to New Orleans—

Q. When was that?

A. In 1947, in the fall of 1947, I believe Mr. Stiles, who is sales manager for B & W on the Gulf coast, and I had gone to New Orleans together, and we went to the offices of the California Company and attempted to see Mr. Flood.

Q. Where were these offices?

- A. It is my recollection it was in the Canal Building at that time. Since then, they have built their own building, but I believe in 1947 their head-quarters were in the Canal Building.
 - Q. All right.
- A. And we attempted to see Mr. Flood, and the receptionist said that he was tied up, Mr. Deupree was also tied up, and Mr. Kipp was tied up. [2387]

And so we were finally sent in to Mr. Goerner's headquarters and that was on the same floor in the same general offices. And we talked to him for a short while and the subject of patents was mentioned.

- Q. Just state the conversation as nearly as you can give it, then.
- A. He stated that they were using some Weatherford equipment in their operations in Mississippi. The California Company was fairly active up there at that time. And he referred to the Weatherford formula, he referred to their catalog, and I pointed out to him and I said, "That is the scratcher there. The patent number under there is B and W's patent," and he was surprised.

And I then happened to have in my briefcase a copy of the patent number, and as proof showed him this soft copy of this Patent No. 2,374,317.

- Q. Was there any other comment?
- A. The general tone of the whole thing was that we were trying to get business from the California Company, and this was not the primary pur-

pose behind the meeting. It was secondary, entirely, the discussion about patents.

I told Goerner that Mr. Toussaint had inquired about patents also, and that the matter had been referred by letter to him, and I told Goerner that the Standard Oil Company of California was using a considerable amount of our equipment, [2388] and he more or less—my impression was that he resented that, the parent company using the equipment, that, like happens sometimes with subsidiary companies, they would like to make up their own minds.

- Q. Did you get any orders from the California Company as a result of this contact?
 - A. No. We did not.
- Q. Now, did you have any other contact with the California Company or with any official or employees, at any time, where the subject of patents was discussed?
- A. No. No other contacts. Any other contacts were purely of a sales nature.
- Q. All right. Now, regarding The Texas Company, you have had certain contacts, I believe, with The Texas Company. When did those begin?
- A. Well, The Texas Company is a large organization. It is my understanding that they have six major headquarters. Those would be at New Orleans, Houston, Tulsa, Los Angeles, Denver, and New York. We sold equipment to The Texas Company. Very soon after we started in business, Mr. Wright and I interested them in the wall-cleaning

guide, and they have been, I would say, consistent customers right along through over the years.

As far as patents and discussion of patents with The Texas Company, in the Houston office one of their divisional [2389] superintendents was a man by the name of Kneale, K-n-e-a-l-e, and he inquired about patents.

- Q. When was this?
- A. My recollection is that it was in 1948 or 1949.
- Q. Where?
- A. In Houston, Texas, in his office in Houston.
- Q. And who was present?
- A. Just he and I, just Mr. Kneale and myself.
- Q. What was said?

A. Mr. Kneale told me that Mr. J. E. Hall, Sr., had been in his office and had told him that he had claims allowed on his patent application relating to his scratcher being rotatable, tangential, and slidable. I remember those three terms. [2390]

Q. (By Mr. L. E. Lyon): Proceed.

A. Mr. Kneale answered me—I might continue—he also said that Mr. Hall, Sr., had told him that the Multiflex scratcher was an infringement of some of the claims that had been allowed in the patent application to him and that the continued use by The Texas Company of the B and W Multiflex scratcher was an infringement of a patent that he was going to get.

Mr. Kneale is an operating man and my concern

was to satisfy him that that was not the case, so that he would not stop the usage of our equipment. We discussed it. I told him that B and W owned patents and that I was sure that his patent department was familiar with the situation, I understood that Mr. Caughey, who was our counsel at that time, had been in touch with the patent department of The Texas Company, and he advised me that he had no stop order against the use of our equipment.

And that was about the extent of the discussion.

Q. All right. Did you discuss patents with any other officer or employee of The Texas Company at any time?

A. One other occasion that I recall was that Mr. Keyes made a similar inquiry.

Q. Where was Mr. Keyes located?

A. Robert L. Keyes.

Q. Where was he located? [2391]

A. He at that time was divisional manager of the Louisiana Gulf coast division, in New Orleans, and that is where I contacted him.

Q. When?

A. He is now president of the Arabian-American Oil Company in Saudi Arabia.

Q. When did you contact Mr. Keyes?

A. It also was in the fall of 1947.

Q. All right.

A. And his inquiry was very similar to Mr. Kneale's inquiry as to what the status of the patent situation was between B and W, Incorporated, and

Weatherford Spring Company. I gave him similar information that I gave to Mr. Kneale, and that was about the extent of that contact.

- Q. Did you have any other contact with anybody of The Texas Company?
- A. One other contact I recall was with Mr. Ellzey of The Texas Company at Tulsa, in the Tulsa divisional office.
 - Q. How is that spelled?
- A. E-l-l-z-e-y—and he told me that he had referred the question of patents to their patent counsel and that they had been instructed to continue the usage of B and W and also Weatherford equipment, and he was resting on the advice of the patent department of The Texas Company.
- Q. Did Mr. Ellzey state how the patent question was [2392] presented to him or how it came to his attention?
- A. Yes, that it had been brought up by this same advertising and the fact that somebody in the Tulsa divisional office was of the impression that Weatherford Spring Company or J. E. Hall, Sr., had had a patent at issue as shown by their catalog, and that generated the inquiry.
- Q. Did you have any other conversation at any time with any member of The Texas Company with reference to patents?
- A. I can't recall any other contacts concerning patents.
 - Q. Mr. Barkis, you have certain salesmen out.

Do you give the salesmen any instructions on selling?

- A. We surely do, and one of the firm instructions is not to mention the patent situation because, as I have stated before, it is very poor sales policy, sales material.
- Q. And how long has that been your policy and how long has that been your idea and your practice?
- A. Since there has been any discussion between Weatherford Spring Company and ourselves.
 - Q. All right.
- A. That doesn't mean, Mr. Lyon, that—These men have been asked questions, the same as I have been asked questions, but there is only one man in the organization that has any information and that is not extensive. It is only enough so that he can answer an inquiry and to refer it, with the instruction to refer it to the legal department of the [2393] company or to refer it to your office.
- Q. Now, how about the Amerada Petroleum Corporation? Have you had any contacts with them?
- A. Yes. Amerada Petroleum Corporation headquarters are in Tulsa, Oklahoma, and one of their operations men in 1948 was Arnold, who is now in North Dakota, and he made an inquiry of Mr. Charley Millikin, who is the chief engineer of Amerada Petroleum, and I have known him for years. Mr. Millikin inquired of me what the patent situation was between the Weatherford Spring Com-

pany and ourselves, and I followed the same pattern of telling him that we owned patents, that there was a contract of 1944 between J. E. Hall, Sr., and B and W, Incorporated, and that to my knowledge there was no patent at issue to J. E. Hall, Sr., on a scratcher. [2394]

It was not a lengthy discussion. It was more or less a casual inquiry, is my impression.

- Q. Now, did you contact any other member, officer or employee of the Amerada Petroleum Company at any time or have any conversation with him with reference to patents?
- A. No; I had no discussion with any other personnel of Amerada Petroleum about patents. I contacted many of them on sales contacts but have not discussed patents.
- Q. How about the Union Producing Company? Did you have any conversations with that company?
- A. Yes. Yes; over the years I have had a lot of discussions with them.
- Q. Have you had any discussions with them concerning patents?
- A. In 1948 Mr. Somner and I contacted Mr. Quigles. He is the head man of the operating department of Union Producing Company. They headquarter at Shreveport, Louisiana, have their own building, and it was in Mr. Quigles' office that Mr. Somner and I contacted him. There were just the three of us there. And Mr. Quigles inquired about patents, but his main concern was that he didn't want to get tangled up in any litigation and

didn't want to get his company, as he said, in a mess. He referred us to his engineer, Dowd, Bert Dowd, and told us to tell Dowd what the situation was

- Q. When was this? [2395]
- A. This was in 1948.
- Q. Where?
- A. In the same office building with the Union Producing Company in Shreveport, Louisiana.
 - Q. Who was present?
- A. There was just Bert Dowd, W. L. Somner and myself.
 - Q. All right.
- A. And we told Dowd of Mr. Quigles' instructions and we gave him the same information I have testified to; that we owned patents; we were trying to interest them primarily in the usage of our new centralizer and Multiflex scratcher. I asked them for their business or part of their business, and that was about the extent of that contact.
- Q. Did you have any other contact with any officer or employee of the Union Producing with reference to these scratchers or patents?
- A. Since last year, in 1952, I met Mr. Fiser and he—
- Q. Is that the first time you have ever met Mr. Fiser?

 A. Yes; to my recollection it was.
 - Q. Who is Mr. Fiser?
- A. Mr. Fiser is now legal counsel for the Union Producing Company and headquarters at Shreveport, Louisiana.

- Q. You met him in 1952? A. Yes.
- Q. Where? [2396]
- A. In his office in the Union Producing Building at Shreveport.
 - Q. Who was present?
- A. Mr. F. F. Lewis, who is the owner of Hub Supply Company, and I called on Mr. Fiser. The three of us were present. And his inquiry was: "How are you getting along," and we said, "Well, it don't seem that we are making much headway," and it was not any discussion of patents. It was more the inquiry as to how this litigation in this action here was progressing.
- Q. Any other conversation had with Mr. Fiser at any time?

 A. No; I don't recall of any.
- Q. Did you know a Mr. Edwards with the Union Producing Company?

A. Mr. Edwards is an attorney connected with the firm of Vinson, Elkins, Weems & Francis in Houston. And after the Lake Charles suit, or particularly the New Orleans decision in the Court of Appeals, the Union Producing Company had stopped using all B & W equipment and I called on Mr. Edwards to try to convince him that B & W straight-bow centralizer was not involved in any litigation whatsoever and trying to get him to get some sort of a clearance through so that Union Producing Company could use B & W straight-bow centralizers. It is my understanding Mr. Quigles all B & W equipment at that time.

- Q. Did that include scratchers?
- A. It included all B & W equipment. And for quite a long while, my understanding, Union Producing Company did not use any scratchers in their cementing operations.
 - Q. Anybody's scratchers?
 - A. Anybody's scratchers.
- Q. Do you know whether that condition still exists?
- A. Just recently they appointed a cementing committee—
 - Q. Now, what do you mean by "recently"?
- A. Within the last six months—and that committee has studied the usage of scratchers and centralizers by all other companies and has made certain recommendations to the field department or the production department, and they have started within the last few months, two or three months, of using some scratchers. I don't know just how extensive it is.
- Q. I believe you have already testified with respect to your contact with the Gulf Oil Company in the United States. Have you ever contacted any official or employee of the Canadian Gulf Oil Companies?
- A. No, I never have. I don't know anybody in the company.
- Q. To your knowledge, has any person in B & W ever discussed with any official of the Canadian Gulf Oil Company [2398] any question of patents?

- A. No, definitely nobody has discussed with any official of Canadian Gulf patents.
- Q. Is that true of any employee of the Canadian Gulf?
- A. I am sure that I haven't. I will testify to that. It is my impression that Mr. Wright has not contacted anybody, but definitely I have not.
- Q. Now, Mr. Barkis, when this so-called \$2.50 royalty letter hit the field did it have any effect on your business?

 A. It sure did.

The Court: That is Exhibit?

Mr. L. E. Lyon: That is just what I was going to get, your Honor.

The Court: JJJ, the clerk tells me.

Mr. L. E. Lyon: JJJ. If you will hand it to me?

The Court: Letter of January 12, 1952?

Mr. L. E. Lyon: Yes, your Honor.

The Court: By Mr. Scofield.

Mr. L. E. Lyon: Yes.

Q. I hand you a letter marked Exhibit JJJ—and which, incidentally, on the one that is in evidence, your Honor, the list is wrong. It is dated January 18th, and not January 12th as set forth in the list, but they were sent out on both dates.

I hand you Exhibit JJJ and will ask you if that is what [2399] you understood I was referring to when I referred to the \$2.50 royalty letter?

- Λ . Yes, this is the \$2.50 royalty letter.
- Q. You stated that that had an effect upon your business. What was that effect?

Mr. Scofield: Now, if your Honor please, if this witness is going to testify with regard to the effect that this may have had on the sales, of course we are going to ask that these sales records, besides the companies that we now have asked for, be made available so that we can determine for ourselves just what the effect was upon any companies that he testifies about.

* * *

A. As soon as this letter, which the record shows was widely circulated, was received by oil companies and supply companies it started a chain of telephone calls, [2400] inquiries and demands for letters of indemnification. A whole chain of events came about as soon as this letter was released.

Q. (By Mr. L. E. Lyon): Did it result in the total stoppage of sales to certain companies, certain supply companies?

A. Yes. I believe there is in evidence here correspondence showing that certain companies such as Continental Supply Company, Jones & Laughlin

Supply Company, Bethlehem Supply Company, all very large suppliers, very large customers of ours, had advised their field force not to purchase any B & W Multiflex or Nu-Coil scratchers, as set out in the Scofield letter of January 12th, Exhibit JJJ.

Q. (By Mr. L. E. Lyon): You say that correspondence is in evidence or has been offered. I believe that you are familiar with this exhibit list.

Maybe it would save time if you would look at it and tell me which letters you had in mind.

- A. One exhibit number is SSS. It refers to the Continental Supply Company. RRR, QQQ, PPP, OOO, I believe NNN, MMM—from KKK on to SSS. [2401]
 - Q. All the way from KKK to SSS, is that it?
 - A. I believe that is it.

Mr. L. E. Lyon: It goes further than that, doesn't it? VVV, WWW, XXX, YYY—no, not YYY. It goes through to VVV, and AAAA.

The Court: Would not CCCC be included in that order?

Mr. L. E. Lyon: Three-C's?

The Court: Four-C's.
The Witness: Four-C's.

Mr. L. E. Lyon: Yes. I want CCCC, BBBB, and AAAA also. I will start out.

- Q. I will hand you Exhibit KKK and will ask you if you can identify that letter; if so, state what it is?
- A. This is a letter of the Bethlehem Steel Corporation, or as commonly known, Bethlehem Supply Company, dated February 26, 1952, signed by Mr. W. B. Cotton of the Tulsa office, and addressed to store managers, district managers, division managers, resident managers, representatives, department heads, on the subject of B & W, Inc. This is the——
 - Q. Would you classify this as a stop order to

stop purchasing Multiflex and Nu-Coil scratchers from B & W?

A. Yes, it was. It is the—

- Q. What date was it issued?
- A. The stop order that was sent out generally by the Bethlehem Supply Company on February 26, 1952, to all of [2402] their stores against any further purchase of B & W Nu-Coil and Multiflex scratchers.
- Q. And now I hand you Exhibit LLL. Can you tell me what that is? This letter refers to a telephone conversation had with reference to this \$2.50 royalty demand letter and makes some kind of a request of B & W. What was that request, do you know?
- A. This letter of Bethlehem Supply Company dated January 22, 1952, which would be just after their receipt of the Scofield \$2.50 demand letter. It is addressed to the attention of Mr. K. A. Wright, was received at the Long Beach office, and it is a typical letter of inquiry from corporations as to what the status of the situation is, and giving us 24 hours' notice to take some action on it.
- Q. Did you endeavor to do anything—I mean by "you" B & W, endeavor to do anything within that 24-hour notice as stated by Bethlehem Steel Company?
- A. Yes. As I say, this is a typical letter. It was not only from Bethlehem Supply Company, it was from hundreds of companies that we had, and all dropped in at the same day or within a few days of each other, and each company was concerned

about their liability in purchasing equipment from us and selling it on to some oil company, and demanding letters of indemnity and demanding assurance that they would not be involved in [2403] litigation.

- Q. In endeavoring to satisfy the Bethlehem Supply Company what did you do, if anything?
- A. A general pattern developed from this thing. We would contact your office, a letter of indemnification would be prepared, that letter would be sent to the company, to the Bethlehem Supply Company. And most of them were reasonable enough to say: "Well, we will wait until we hear from your legal counsel." And that letter of indemnification would generally be accompanied with a letter of transmittal from your office.
- Q. I hand you a copy of Exhibit AAAA and ask you if that is the form of letter of indemnification that was sent to all of the companies from whom you received inquiries with reference to the Scofield \$2.50 royalty demand letter?
- A. Exhibit AAAA is the letter of indemnification from the Anderson-Pritchard Oil Corporation at Oklahoma City, Oklahoma.

Mr. Scofield: What is the date?

- A. Of February 6, 1952, and is the form of letter sent out as developed by your office, and sent out to the people that demanded a letter of indemnification.
- Q. (By Mr. L. E. Lyon): The same letter was sent out to all parties, was it?
 - A. The same letter was sent out to all parties.

- Q. The only difference being in the [2404] addressee?

 A. That is correct.
- Q. I hand you a list of Exhibit BBBB and ask you what that list is, if you know?
- A. This list is headed: "List of companies to whom indemnity letters were sent" by your office, and on receipt of correspondence from Houston or from our Long Beach office which was forwarded to your office for handling; and that is what Exhibit BBBB covers.
- Q. You signed all of the letters of indemnification yourself, didn't you, Mr. Barkis?
- A. I signed a great many of them, but I am of the opinion that Mr. Wright also signed some of the letters of indemnification, too, and particularly for the West Coast.
- Mr. L. E. Lyon: May it be stipulated that this list, Exhibit BBBB, is a partial list of the companies to whom such letters of indemnification were sent? I will state that this list was prepared by my secretary who wrote all the letters.

Mr. Scofield: Yes, that can be stipulated.

The Court: That is in evidence, is it not?

Mr. L. E. Lyon: Yes, your Honor. They are all in evidence. All of these letters are in evidence, but I believe that they require some explanation.

Mr. Scofield: Can't we have on this list some place indicated the date when these letters were sent out?

Mr. L. E. Lyon: All the letters were sent out

(Testimony of Bruce Barkis.) during the [2405] month of January or February, 1952, as far as I know.

The Court: So stipulated?

Mr. Scofield: Yes, sir.

The Court: You are referring to the letters sent to the persons listed on Exhibit——

Mr. Scofield: BBBB.
The Court: ——BBBB.

- Q. (By Mr. L. E. Lyon): You sent such letter of indemnification as is shown by Exhibit AAAA to the Bethlehem Supply Company. Did they accept the letter and start purchasing?
 - A. No, they did not.
- Q. To your knowledge, have they ever withdrawn the stop order as shown by Exhibit KKK stopping the purchase of both your Nu-Coil and Multiflex scratchers?
- A. No. I called on Bethlehem Supply Corporation or Supply Company at Tulsa.
 - Q. When?
- A. In 1952, following this letter. We had furnished them with a letter of indemnification and it was not for some time before I found out that they had not lifted this stop order of Exhibit KKK.
 - Q. As far as you know, is it still outstanding?
- A. It is my recollection that the stop order still exists against the purchase of our equipment.
- Q. Prior to this date of receipt—I mean prior to [2406] the date of Exhibit KKK, which is February 26, 1952, was Bethlehem Supply Company a

steady customer of B & W in Multiflex and Nu-Coil scratchers?

- A. Yes, they had been ever since the equipment was released, why, they have been, I would say, very large customers.
 - Q. What do you mean by very large customers?
 - A. Do you mean in dollar volume?
 - Q. In dollar volume.
- A. I believe a good estimate would be \$4,000 a month.
- Q. Now, I hand you Exhibits MMM, NNN, OOO, and ask you if you are familiar with these exhibits, and if you will state what they are and the substance of any contacts that you had with this company with reference to this correspondence or any part of it?
- A. Exhibit MMM is a letter from Jones & Laughlin Supply Company of February 14, 1952, signed by Farwell, purchasing agent, and it is a letter of inquiry addressed to B & W, Inc., at Long Beach, California; and this letter includes mention that they have received the \$2.50 royalty demand from Scofield and it acknowledges receipt of our letter of January 21, 1952, which included our letter of indemnification; and then it states that their attorney, after giving it consideration, decided that it is not acceptable, and they suggest withholding "\$2.50 for each scratcher shipped and billed us until the matter is settled, or as an [2407] alternative that you give us a bond to protect us on this

(Testimony of Bruce Barkis,) claim for royalty." Following the receipt of this letter——

Q. Do you know where that suggestion that you post a bond came from? A. No, I do not.

Q. Go ahead.

A. Of course, the suggestion that a bond be posted is included in this letter here.

The Court: Exhibit?
The Witness: MMM.

Mr. L. E. Lyon: Go ahead.

A. Following this letter I contacted Mr. Farwell at Tulsa, personally, and went to his office and discussed it with him and reported to him that all other companies had accepted our letter of indemnification. And he said that they were not willing to accept that. The legal advice was that the letter would not satisfy their liability, and we were unable to satisfy them. So on March 3, 1952, as shown in Exhibit OOO, a letter circular No. S-576, on the subject: "B & W, Inc., 'Nu-Coil' and 'Multiflex' scratchers" was addressed by Mr. Farwell to their district sales managers, district office managers, local store managers, salesmen—general products.

Shall I read this letter? [2408]

Q. It is not necessary to read it. What does it constitute?

A. It is a stop order on their further purchase or handling of B and W Nu-Coil and Multiflex scratchers until further notice.

Q. Now, is that stop order, to your knowledge, still in existence?

A. No, sir. That stop order was recently lifted.

Q. What do you mean by "recently"?

A. On August 5, 1953, in Circular Letter S-618, on the same subject and addressed to the same people, it says, "Supplementing Circular Letter S-576," which is Exhibit OOO, and I am reading from Exhibit NNN, "dated March 3, 1952, from Mr. W. J. Farwell, it will now be satisfactory to sell B & W, Inc., 'Nu-Coil' and 'Multiflex' Scratchers. Very truly yours, A. G. Bastian, Sales Manager—General Products."

Q. And prior to the stop order, Exhibit OOO, was Jones & Laughlin a customer of B and W in the purchase of Nu-Coil and Multiflex scratchers?

A. Yes. They sold B and W Nu-Coil and Multi-flex scratchers.

Q. Were they a large or a small [2409] customer?

A. Jones & Laughlin Supply Company is a large company. They have a lot of field stores and well represented, and we look at them as a fairly large handler and supplier of our equipment. I don't think that they would handle or sell quite as much as Bethlehem Supply Company.

Q. (By Mr. L. E. Lyon): You say that stop order, Exhibit OOO, has been lifted, and I presume that you are again selling to Jones & Laughlin at the present time, is that correct?

A. Yes, we are.

Q. In each of these cases, of the Bethlehem Supply Company and Jones & Laughlin, did you send to those companies a copy of the injunction

issued by this court against the circulation of this \$2.50 royalty letter? A. Yes. We surely did.

- Q. Did you have any reason to discuss with the officials of these companies the effect of that injunction?
- A. I recall discussing with Mr. Brown, who is the legal counsel for Bethlehem Supply Company at Tulsa, that the injunction had been handed down, and he was making inquiry about the entire situation and I told him that it was my understanding under this injunction that if that were done, [2410] that all of the facts had to be made available to him, and for that reason I would prefer that he contact your office here or at Houston, and so advised you.
- Q. So far as you know, that injunction had no effect whatsoever upon re-establishing any relations between you and the Bethlehem Supply Company?

Mr. Scofield: That is objected to.

- A. No, it did not.
- Q. (By Mr. L. E. Lyon): Is the same true with respect to Jones & Laughlin during the time preceding August 5, 1953?

 A. That is true.
- Q. Now, Mr. Barkis, I hand to you some further correspondence, being the correspondence had with Continental Supply Company and beginning with Exhibit PPP, dated January 24, 1950, to and including a letter of March 3, 1953, Exhibit RRR: a letter of March 4, 1952, addressed to you by the Continental Supply Company, Exhibit QQQ, and a letter, Exhibit SSS, addressed to B and W, Hous-

ton, Texas, and written for the Continental Supply Company by some individual stated to be their attorney, and ask you if you are familiar with this correspondence and, if so, if you will state what it is, and if you had any contact personally with this company, kindly relate that contact and the conversation, where it took place, when, and who were present.

A. The Continental Supply Company is also a very large [2411] supplier of oil-field equipment and has headquarters in the Continental Building at Dallas, Texas. I have discussed this situation with Mr. Swanson, who is one of the executives of that company; Mr. Schmid, who is their purchasing agent, and also one discussion where Mr. Bailey was present. This was not all in one meeting. There were several meetings.

The Continental Supply Company was patterned with most of the companies who received the Scofield letter of January 12th and contacted B and W, Incorporated. This letter was addressed to B and W, Incorporated, Long Beach, California. It is Exhibit PPP. It is dated January 24, 1952, and is signed by Mr. Bailey, their attorney.

Q. Yes.

A. It attached a copy of the Scofield letter dated January 17, 1952, and makes inquiry as to what B and W proposes to do about relieving Continental Supply Company of any liability under this demand.

Q. Yes. Before you could reply to that letter. I believe the stop order was issued, wasn't it?

- A. That is Exhibit RRR.
- Q. And what does that stop order provide?
- A. The Continental Supply Company, in a letter dated March 3, 1952, addressed to their store managers, district offices, district managers and assistant district managers, placed a stop order, instructed all personnel to discontinue [2412] the sale of all scratchers, all scratchers manufactured by B and W, Incorporated. I interpret that to mean of all cleaning guides, rotating scratchers, and all scratchers.
- Q. Subsequently what was done, did they stop purchasing wall-cleaning guides, rotating scratchers, as well as Nu-Coil and Multiflex scratchers from you?

 A. Yes, that is correct.
- Q. All right. Now, what further transpired with reference to the Continental Supply Company?
- A. I had contacted Continental Supply Company and it is my recollection that they had been furnished a letter of indemnification but were not content, and it is my recollection that at that meeting that is when Mr. Swanson and Mr. Bailey and I had discussed the situation.

Mr. Scofield: When was that with regard to the stop order or with regard to the letter of January 12th?

The Witness: Well, it was between naturally January 12th and when the stop order was——

- Q. (By Mr. L. E. Lyon): March 3, 1952-
- A. Yes.
- Q. —was the stop order. A. Yes
- Q Where did that take place?

- A. That was in Mr. Swanson's office at Dallas, Texas, in the Continental Building. The three of us were there [2413] present. Mr. Bailey was concerned about the letter of the Continental Supply Company and not willing to accept our letter of indemnification.
- Q. Had you sent the Continental Supply Company a copy of this court's injunction of January 26, 1952?
- A. That had been done, and also the letter of indemnification and the letter of transmittal. I believe their name would be listed on this.
 - Q. Exhibit BBB.

Now, I hand to you Exhibit UUU and ask you if that is a true copy of the letter of transmittal by which a copy of the injunction of January 26, 1952, was sent out by B and W to all parties?

- A. Yes, it is. This is a form of letter of transmittal that was sent and the photostatic copy of the court order. This was the mailing that was made to all the companies that were on that list.
- Q. And is it your testimony that you used a photostatic copy of the injunction in all cases?
- A. Yes, we did. We made a photostatic copy of the court order.
 - Q. Of January 26, 1952?
 - A. That is correct.
- Q. Now, proceed. Was there any further contact that you had? I wanted to ask you and I did ask you if this [2414] conversation you had was after you had sent the Continental Supply Com-

(Testimony of Bruce Barkis.)
pany a copy of the injunction of January 26, 1952.
Was it?

- A. Yes, it was. It was after that had been sent to them, and it is my recollection before the stop order had been issued.
- Q. That injunction did not result, then, in the holding up of this stop order of March 3, 1952. Is that your testimony?

 A. That is correct.
- Q. Now, you were testifying to conversation you had. Now, have you repeated it fully, that conversation?
- Λ . Yes, that is my full recollection of what transpired.
- Q. Have you had any other contacts with Continental Supply Company with reference to this cease-and-desist order?
- A. This letter here, this letter of March 4th, Exhibit QQQ, refers to it. It is addressed to me at Houston:

"You will recall that when here last week"——that is right——

"We advised you that we would have a further conference within our own organization"—

that refers to the meeting that we had had before, when Mr. Bailey was present, and is acknowledgment of that meeting—and continuing,

"After full consideration of the matter, we [2415] have decided it to be to our best interest in this situation to refrain from the purchase of these scratchers until such time as the present patent

litigation in Los Angeles is terminated and the rights of the parties to that suit are finally determined. Our field personnel is being notified accordingly."

- Q. And does that stop order, that order as set forth in that letter and at the meeting as stated in Exhibit QQQ, still stand as far as Continental Supply Company is concerned?
- A. I have no information that they have lifted that stop order. I recall that a letter was written from your office just before, asking information on this, and if I could refresh my memory with that—
- Q. You mean the letter that I wrote asking if that stop order was still in effect?
 - A. Yes. It seems that letter was written—
- Q. I hand you a copy of a letter, Mr. Barkis, and I ask that it be marked for identification as defendants' exhibit next in order.

The Clerk: Exhibit DS.

(The document referred to was marked Defendants' Exhibit DS for identification.)

- Q. (By Mr. L. E. Lyon): I will ask you if that is the letter that you referred to that was addressed to me by the Continental Supply Company? [2416]
- A. Yes, that is correct. This letter is from the Continental Supply Company, dated October 21, 1953—Exhibit DS.
- Q. And it merely states that they declined to tell me whether it is or is not in effect, isn't that it,

Mr. Barkis? A. That is correct.

Q. You might read the whole letter.

A. (Reading.)

"In reply to Mr. Lewis E. Brown's request by letter dated October 15, for the furnishing to your firm of copies of all field instructions and correspondence regarding purchase or sale of B and W Multiflex and Nu-Coil Scratchers. The material requested is, of course, intra-company business and for this reason we do not care to voluntarily furnish it to anyone outside the organization.

"Regretting our inability to comply with the request but trusting you will appreciate our position in the situation, we remain, yours very truly, The Continental Supply Company."

It is signed by Mr. Bailey, attorney.

Q. And that letter is addressed to "Lyon & Lyon, Patent Attorneys, 811 West Seventh Street, Los Angeles 17, California," in re B and W Incorporated, is it?

A. That is correct. [2417]

Mr. L. E. Lyon: My signature must be awful.

I will offer the letter as identified here in evidence as Defendants' Exhibit DS.

Mr. Scofield: No objection.

The Court: It is received in evidence. [2418]

Mr. L. E. Lyon: I requested, Mr. Scofield, from you certain letters sending out lists of claims that were allowed on these applications. You said you would be able to produce them, not that day, but

you would see if you could produce them. Have you those letters?

Mr. Scofield: I have looked in the file of the case [2421] and I find no letters sent to Mr. Hall, neither John Hall nor to anybody in the Hall family, or that had anything to do with the prosecution of that case.

Mr. L. E. Lyon: Then you are totally unable to explain how Mr. John Hall got lists of the claims that he was handing out or showing to customers, as he testified; is that correct?

Mr. Scofield: I think he probably got them from my office, but they were not sent by us. Mr. Hall must have had them. [2422]

* * *

Q. (By Mr. L. E. Lyon): Mr. Barkis, when you identified Exhibits IIII and CF did you take into consideration in your identification the fact that Exhibit CF is threaded together, as I am here demonstrating by taking it apart, so that Exhibit IIII may be removed from the simulated casing?

A. Yes, I did. I was aware that this was a replica and was familiar with the fact that it was the only practical way to get the scratcher mounted on the casing between the lugs.

- Q. You mean in this replica?
- A. In this replica.
- Q. Was there any such threaded connection used in the Jones & Berdine tests? [2423]
- A. Definitely not. It was three and one-half inch casing, just steel casing, and this is aluminum

tubing here to simulate the three and one-half steel casing.

- Q. The only reason that this threaded connection is made in CF is for a matter of convenience in handling the exhibit, is that correct?
- A. That is correct; and in order to mount the scratcher between the lugs.
- Q. All right. You have stated that what was used by Jones & Berdine was a three and one-half inch easing. Was that an actual casing size as used in oil wells?
- A. Yes, it is an actual easing size on the small side.
 - Q. All right.
- A. But there is three and one-half inch easing used in oil well drilling.
- Q. Was the scratcher which is exhibited in Figure 26 in the Jones & Berdine report, and also those in Exhibits (Figures) 14 and 18, actually suitable for running in an oil well?

 A. Yes, they are.
 - Q. They function correctly in an oil well?
 - A. They would get the job done.
- Q. Just any different than your wall-cleaning guide gets the job done?
- A. No, there would be no difference, except in the action of the wires on the wall of the [2424] hole.
- Q. What difference would there be there? And I mean between Figure 26 of the Jones & Berdine report and your wall-cleaning guide?
 - A. The wall-cleaning guide has an upturned end

and in running in the hole does not disturb the mud cake. The scratching is on the upstroke of the easing. When the point of the scratcher is in engagement with the wall of the well, this device here scratches—

- Q. You mean Exhibit IIII?
- A. Exhibit IIII scratches on the upstroke and on the downstroke.

The Court: Is it intended that Exhibit IIII should be rotated to do the scratching or is it intended to do the scratching on the up and down stroke, or both?

The Witness: The Exhibit IIII is rotatably mounted on the casing and in the easing moving up and down the travel of the scratcher is in a vertical plane. It does not rotate. The scratcher does not rotate during the travel of the easing.

The Court: There is no rotation of the casing to effect any scratching?

The Witness: No, sir.

- Q. (By Mr. L. E. Lyon): Now, explain to the court, Mr. Barkis, when this scratcher rotates on the casing?

 A. When the casing is raised——
- Q. Let us start in this position, Mr. Barkis: The [2425] casing is being lowered into the hole; will the scratcher ring or collar then be engaged with the upper lugs, or won't it?
 - A. That is correct.
- Q. What happens when you get to the end of the lowering and start to come up? Just demonstrate that.

A. The ends of the wires are in engagement with the wall of the well.

The Court: That means the scratcher will be pushed down against the lower lug?

The Witness: No, sir. As the casing is lowered in the well the scratcher is in engagement with the upper lug and the wires are in contact with the well bore. Then when the bottom of the stroke is reached the casing raises through the scratcher and the wires are in engagement with the wall of the well bore and hold the scratcher in position until the lower part of the scratcher collar engages the lower lugs, and then the wires change their upward position to a downwardly pointing direction, and that is the point of reversal of the scratcher wires. [2426]

Q. (By Mr. L. E. Lyon): What happens during the reversal?

A. There is rotation of the collar, of the scratcher collar on the casing.

Q. Caused by what?

A. Caused by the forces, reversal forces, horizontal forces that act on the scratcher wire and push against the scratcher collar.

Q. Does the same thing take place at the upper end of the stroke when it is reversed and starts down again?

A. Yes. As the casing reaches the top of the stroke, the opposite action occurs, and the cement slurry is lowered through the scratcher collar, and the downwardly pointing wires reverse to an up-

wardly pointing direction, and the same operation, rotation of the collar on the casing, occurs.

The Court: What is the length of that stroke? The Witness: In the Jones Exhibit X, as I testified yesterday, it was 42 inches in his test apparatus.

The Court: Yes, but normally?

The Witness: Normally, in an oil well, it would vary from 8 feet to 40 feet.

The Court: And how many such strokes are to be undertaken in the average well?

The Witness: That varies.

The Court: In other words, how much scratching would be [2427] done?

The Witness: That varies with the operator.

The Court: And, I take it, with what the log shows as to the formations?

The Witness: What the log shows.

Q. (By Mr. L. E. Lyon): Over a range, Mr. Barkis, how many reciprocations occur, what is the range, minimum to maximum?

A. Oh, from 20 minutes to two hours. Some operators want to scratch that long. And a stroke is every two minutes up to a certain distance, 20 feet, and back down 20 feet, and that stroke would require, with the ordinary draw works, within a range of two minutes. So, for an hour, just assuming a circulating period of an hour, that would be 30 complete strokes up and down. So, assuming a 20-foot stroke, that would be 1200 feet the scratcher would travel, that is, during the mud-circulation

period prior to putting the cement slurry into the well.

- Q. Is it reciprocated also during that period of time? A. It definitely is.
 - Q. And for how long?
- A. Well, during the entire placement of the cement slurry. After the mud-circulation period, the cement slurry is mixed by the cementing service company, Halliburton, International, Byron-Jackson, and is pumped inside of the [2428] casing.

The cement head is either released or a special type head is used where a plug is inserted on top of the cement slurry, and the slurry then is pumped on down into position.

The cement slurry occupies approximately, depending on the amount of cement used, one-third or one-half of the volume of the casing, and as it travels on down——

- Q. You mean lengthwise, in?
- A. Laterally of the casing. So a 6,000-foot casing—and these are average figures I am giving—would have 2,000 feet of cement slurry inside of the 6,000 feet of steel casing.
- Q. That is, that the cement would only occupy that 2,000 feet? It wouldn't be a mixture of mud and cement in that 2,000 feet?

 A. Not at all.
- Q. That is why I wanted to get rid of that word "laterally," because there might have been some confusion about that.
 - Λ. I meant lengthwise of the casing.

Then mud fluid is pumped in above the cement-

ing plug, and the cement slurry travels down until the first part of the—I mean the cement slurry then starts around the shoe of the easing.

And in all of this period the casing is being moved up and down and the scratchers are removing either the primary [2429] cake that has been formed at the start or the secondary cake that is formed from the high pressures in the well, even during the stroking of the casing, and then the cement slurry starts around in the annulus.

Q. By "annulus" you mean what?

A. The space between the casing and the well bore. And then it is in contact with the scratcher equipment, the centralizer equipment, and, as it travels upwardly, that may require eight, ten, twelve, twenty minutes, thirty minutes in that period.

The motion of the casing is still continued and finally the cement reaches what is called the equalization point when the pressures are equal inside and out, because the mud and the slurry, as a rule—the cement slurry weighs more than the mud fluid, and when the columns are about equal inside the casing and outside in the annulus, the pressures are about equal. And then in the pressure phase, when the cement slurry is being lifted beyond that point, pressures increase on the pressure gauge on the pump, and the cement slurry then is moved on up into its final position.

The Court: How do you avoid having this cement column get inside the casing?

The Witness: The cement column is inside of the casing, as the plug separates it from the mud fluid that is pushing it down into position. The problem then is to pump the casing [2430] full of mud which will displace the cement slurry on the outside of the casing.

The Court: What do you mean, so that the cement slurry will replace the mud?

Mr. L. E. Lyon: No. Wait.

The Witness: It will replace the mud in the annulus, but the mud that is being pumped behind the cement slurry will displace the cement slurry inside of the casing.

Q. (By Mr. L. E. Lyon): And push it out of the casing?

A. And push it out of the casing, the lower end of the casing, and up around——

The Court: But it will keep the pressures equalized inside and outside of the casing, is that it?

The Witness: There is a pressure cycle, that as the heavy cement slurry is going down, the pumping pressure required to pump it down is at a minimum, but as we are lifting the cement slurry on the outside of the casing, then the pressure increases. So there is not an equal pressure. There is a pressure cycle in there from lower pressures to higher pressures.

The Court: I just wondered how you could determine when you got the cement outside of the interior of the casing.

The Witness: The cement plug is the barrier between the cement slurry and——

Q. (By Mr. L. E. Lyon): What is a cement plug? Let us [2431] get a picture of it, a verbal picture, I mean.

A. The cement plug is a mechanism about eight inches long. It has an upwardly pointing rubber cup and downwardly guiding mechanism made out of rubber which is drillable.

Then the mud fluid behind, because of this rubber cup at the top of the plug, seals—when the plug hits the barrier, the pressure then seals the cement out again, and it is impossible to pump it through.

Now, at the bottom of the casing there is a downwhirler float shoe, as I testified yesterday, or a float collar, which is sometimes placed 30 feet above the bottom of the casing to leave that amount of cement inside of the casing, and when the cement plug reaches either the barrier of the float collar or of the float shoe, it stops the mud pump at the top and it is impossible to pump any mud in to follow up the cement.

The cement is then in position, in definite position, at the bottom of the easing and, as I say, above the bottom of the easing as the volume of cement that is used or the engineer calculated as the bottom of the hole that he cared to fill.

The Court: And it fills the annulus?

The Witness: Yes, sir.

Mr. Scofield: Won't it help the court, Mr. Barkis, to explain to him that the cement is intro-

duced ahead of the plug so that you get a column of the cement in the easing? [2432]

The Court: I have that understanding.

Mr. Scofield: Yes, sir.

The Court: That is my understanding of the picture.

 Λ plug is more or less like a plunger that follows the cement ahead of it.

Mr. L. E. Lyon: That is true.

The Witness: That is correct, and there is a barrier between the head of the cement slurry and following behind the mud fluid.

The Court: The problem in my mind is how to determine whether you have a casing full of cement at the bottom of the well.

Mr. Scofield: Well, we do have a casing full of cement, your Honor, when you put it in at the top. Then you put the plug in behind the cement.

Mr. L. E. Lyon: The witness has explained it.

Mr. Scofield: And then you put mud in behind it.

The Court: I believe I understand it now.

Mr. L. E. Lyon: I would like the record to show at this point that arrangements have been made for two accountants to fly to Houston tonight and get the records which may be available there and desirable to plaintiff.

At the same time I would like to give plaintiff notice that I would like to have them inspect the records and books with reference to sales made to the supply companies testified [2433] to here before, so as to satisfy themselves as to our charts that are

being prepared at the present time, so that they will have full information with respect to those sales over that period of time requested, from January 12th and prior thereto, say from 1948, prior thereto, until the present time, with reference to the supply-company sales.

Mr. Scofield: Will you read Mr. Lyon's statement?

Mr. L. E. Lyon: And in this respect, your Honor, I may say, regarding my theory of this matter, and it may be that it does not comply with the court's, but I intend to show that this damage was caused by using one example of one supply company, not all of them, and rely on accounting to prove the precise amount of loss afterwards, and I do not deem, in my opinion, that it is necessary in a prima facie case of this kind, provided that there was damage, to prove all of the damages.

The Court: No. Only that there was damage and that there was damage of some consequence.

Mr. L. E. Lyon: That is right. [2434]

Q. (By Mr. L. E. Lyon): Mr. Barkis, you have testified that you were for some years with the State Mining Bureau and occupied a position of engineer in that State Mining Bureau job. While you were with the State Mining Bureau, did the well reports and logs pass over your desk?

A. Yes, they did, as required by California statute.

- Q. And did you inspect, during that period of time, [2436] all of those logs that went over your desk? A. Yes, I did, hundreds of them.
- Q. Was there any requirement of the State Mining Bureau Act or any other regulation or rule which required a listing on those reports of special equipment used in any phases of the well?
- A. No. There is no requirement to include any special equipment used in the well in any of the official reports turned in to the California Division of Oil and Gas.
- Q. While you were in the position of engineer with that bureau, did you see any listing of special equipment go through those reports?
- A. I have no recollection of having seen any reference in the well logs or well entries, entries of drilling and completion operations, that included that type of material.
- Q. The question has been raised here several times with respect to the fact that the Mining Bureau reports of the Kelley well do not make any reference to the scratchers used in that well. In ordinary practice of the Mining Bureau in such reports would such scratchers have been included?
 - A. No. They would not have been. [2437]
- Q. Mr. Barkis, set forth completely in the instructions of this Court January 26, 1952, a copy of which is attached to Exhibit UUU in evidence is a stamping which the defendant placed upon its invoices, that stamping being:

[&]quot;'This invoice includes a royalty of sixty cents

(\$.60) per scratcher for each scratcher sold and extends to the purchaser a license to utilize the scratchers sold in practicing the inventions of Letters Patent Nos. 2,338,372 and 2,392,352 and under Claims numbered one through nine, inclusive, and Claim fifteen of Letters Patent No. 2,374,317 or either or any thereof.'"

Why did B & W stamp its invoices in that manner at that time? In the first place, did they stamp them at that time in that way?

- A. Not at this time.
- Q. I say at that time.
- A. But prior to that time we had stamped our invoices, on the legal advice of Lyon & Lyon.
- Q. And what was that advice and what was it based on?
- A. It was based on the fact that B & W owned method patents and apparatus patents, and it was B & W's attempt—or not "attempt"—but B & W's wish to avoid any claim of misusing those patents.
- Q. At the same time that you started stamping this [2438] notice, which I have read into the record from Exhibit UUU on your invoices, were there any other acts taken by B & W to notify the trade that licenses were freely available under the patents as listed in this notice and under the claims listed therein?
 - A. I can't recall any correspondence covering it.
- Q. Don't you recall the notice that was sent to the Patent Office to place these patents on the register, Mr. Barkis?

- A. Oh, I was thinking of oil companies. We contacted the Patent Office and placed the patents on the register and, on the advice of Lyon & Lyon, established a licensing policy.
- Q. And that notice to the Patent Office stated, did it not, substantially the same as is set forth in this quoted portion of Exhibit UUU that I read into the record? [2439]
- Q. (By Mr. L. E. Lyon): At the time this stamping that I read was placed on your invoices there was being made a claim against your company for violation of the anti-trust laws, was there not, both here and in Texas?

 A. Yes, there was.
- Q. And did that have anything to do with my advice to you to place that notice on the invoices?
- A. It was my understanding that that was the control. [2440] Following the filing of the suits, of the two suits in Houston, why, we had asked for advice on the matter.
- Q. Did that marking of that invoice cause any difficulties in your sales program, Mr. Barkis?
 - A. No, it did not.
- Q. Didn't you have an inquiry from the Gulf Company objecting to that marking?
- A. The Gulf asked for a review and an explanation, and it was my understanding that that was done. I didn't handle the situation. That is why I am not familiar with it.
 - Q. Mr. Barkis, you started to manufacture and

place on the market for sale the scratchers in the first part of 1940; isn't that correct?

- A. That is correct.
- Q. And you made some sales, as shown by the records here in evidence, prior to March 19, 1940, the date of the reading of this report by Mr. Jones before the local division of the API at the Biltmore Hotel; that is true, isn't it?
 - A. That is correct.
- Q. Did your business increase after March 19, 1940?
- A. Yes, it did. The Jones & Berdine report on cementing and the success they had had with the usage of scratchers was very helpful to B & W, Inc.
 - Q. Well, did it open up this business?
 - A. Yes, it was a great stimulant. [2441]
- Q. Your sales increased so that in June of that year you opened up a second office, didn't you?
- A. Yes, in June of 1940 I went to Houston, Texas, and opened up the Gulf Coast office.
- Q. And you had sufficient business between March 19 of 1940 and June of 1940 to require you to open up a second office, is that it?
 - A. That is correct.
- Q. At that time was there anybody else in the scratcher business?

 A. No, there was not.
 - Q. You were the sole occupant of the field?
 - A. Yes, we were.

The Court: How long was that so?

The Witness: Until, I would place the first event as July 7, 1941, the release of the advertise-

(Testimony of Bruce Barkis.)
ment in the Oil Weekly of the Weatherford Spring
Company.

- Q. (By Mr. L. E. Lyon): That is Exhibit A?
- A. Exhibit A, yes.

Mr. Scofield: What was the date that you started the Houston office?

The Witness: The latter part of June, 1940.

- Q. (By Mr. L. E. Lyon): Mr. Barkis, along in 1940 there came on the market—maybe it was in '39; you tell me which—a device that was introduced, known as a "hole caliper," [2442] is that correct?
 - A. No, sir; it was a little later than that.
 - Q. How much later?
- A. Mr. Myron Kenley of Houston, Texas, the fire fighter, was the inventor of the hole caliper, and it was after I got to Houston, quite a while after I got to Houston, before the hole caliper was used in the field. It is possible a few tests may have been made but there had been no commercial usage of the device.
 - Q. Now, what is a hole caliper?
- A. The hole caliper is an instrument to be run into an oil well to determine the diameter of the hole and to record that diameter at the surface on a graph, on a paper. I might say that Myron Kenley then licensed Halliburton Oil Well Cementing Company and the Halliburton device was the first commercial caliper on the market.
- Q. Did that hole caliper result in any modified thinking in your experience with respect to oil well

cementing? A. Yes, it did.

- Q. What was that modified thinking?
- A. It had a very considerable effect. The hole that had been drilled with an 8¾ bit, as is common in usage on the Gulf Coast, when the caliper was run the diameter of the hole was found not to be 8¾ inches. It was found [2443] that the hole had a very variable contour; that the diameters of the hole varied and that bore some relationship to the formation.
- Q. Well, did the diameter of the hole vary—in what direction did it vary?
 - A. Well, it varied in all directions.
- Q. That is, horizontally it was not circular, is that correct? Λ . That is correct.
- Q. And vertically it was not cylindrical, is that correct?

 A. That is correct.
- Q. Well, did they find that the hole was larger or smaller than they thought as produced by the 8\(^4\)-inch bit as you have testified?
- A. Why, I have examined many caliper surveys and the hole in a lot of the area of the hole is larger than the bit, and then in the permeable formations, and also dependent on the water loss of mud drilling fluid, sometimes the indicated diameter of the hole, as shown by the caliper survey, is smaller than the bit diameter that was used to drill the hole.
- Q. So that the hole was shown both to be larger and smaller in sections than they thought before the introduction of the hole caliper, is that [2444] correct? A. It certainly was.

- Q. Depending upon the particular section?
- A. That is right.
- Q. Did that determination or discovery or knowledge in the oil industry cause any change in scratchers or their usage in oil wells?
- A. Well, generally, before that time the outer diameter of the scratchers corresponded, I would say, fairly closely with the bit diameter. After that time, why, the companies realized that there was a considerable variation in the hole diameter and the length of the wires in relation to the bit diameter or the diameter of the scratcher was increased.
- Q. In order to meet that changed situation and to meet the conditions of the engineers in the field what did you advertise with respect to the length of the wires of your scratchers, Mr. Barkis?
- A. Well, I recall that all of our catalogues, and in our discussions, we told them that we would provide any wire length that they wanted; that the purpose was to engage the wall of the hole and we would furnish any scratcher wire length that they would specify.
- Q. I place before you your Bulletin 101, which is Plaintiff's Exhibit 42, and call your attention to the fact that there is a price list chart on what appears to be the [2445] third page of the bulletin, and ask you if that price chart contains in it the notice that you gave to the trade to which you have just testified; and if so, will you read it?
- A. Yes, this price list shows, in addition to what we termed the standard outer diameter of

each size scratcher for certain sizes of API casing, the statement below the chart that "wire length varied at no additional cost for any size easing or hole condition."

- Q. Now, Mr. Barkis, you are still selling wall-cleaning guides like that shown in this Exhibit 42. Do purchasers now specify still the wire lengths that they desire?
- A. Yes, they do. The standard wire lengths are shown. We provide three lengths of wires for each API size casing. They call the "short," the "standard," and the "long," and they specify whichever wire length that they require.
- Q. Are you still holding out to the trade the same thing that was originally in Bulletin 101, Plaintiff's Exhibit 42, that you vary the wire length at their specifications on request?
 - A. That is correct.
- Q. Did the introduction of this Halliburton hole caliper cause any change in concept in the industry as to what the length of scratcher wires should be?
- A. Yes. I believe I testified that when the operating companies found that the contour of the hole varied and the [2446] diameters varied, that they generally increased the wire lengths of the wires on the B & W wall-cleaning guides.

Mr. L. E. Lyon: May I have Exhibits A and B?

Q. In Plaintiff's Exhibit 42 there is a chart which includes a series of casing sizes and includes one casing size which is 8½ inches. Have you ever seen anybody run such a casing size?

- A. No, I have never been on a derrick floor that an 81/8-inch casing was used.
 - Q. Isn't that a freak size, if it ever existed?
 - A. It is an unusual size.
- Q. Isn't that an error in that chart to put that in there?
- A. I don't believe it was an error, but there isn't any such pipe in usage, or generally used or even occasionally used.
- Q. Did you ever sell any such scratcher for any such size?
- A. I don't believe that we ever sold or manufactured such sized scratchers.
- Q. That chart compares, does it not, with the chart set forth in Exhibit A, Mr. Barkis, that is, the Weatherford Spring Company's first advertisement?
- A. Yes, it compares, but the chart in Exhibit A is not as extensive as the chart in Exhibit 42. It includes [2447] three columns that are a part of the chart of B & W catalogue, Exhibit 42.
- Q. And were lifted out of 42, weren't they, to the extent that they contain the 8½-inch casing size?
- A. Yes, there is 10 casing sizes shown and $8\frac{1}{8}$ is shown on each of the charts.
- Q. Under the chart of Exhibit Λ is this statement with respect to the wire lengths. Will you read that statement?
 - A. The statement is identical: "This wire length

varied at no additional cost for any size easing or hole condition." And I am reading from Exhibit A.

- Q. Look at Exhibit B and see if the same thing is not there repeated again on September 11, 1941, that is, the same chart and same statement?
- A. Yes, the chart on Exhibit B is the same as the chart on Exhibit A, and also it includes 8½ in size and the same statement concerning the variation of wire lengths.
- Q. I place before you, Mr. Barkis, letter of July 28, 1950, written by Mr. Scofield to Mr. George D. Fiser of the Union Producing Company, in evidence as WWW. Did you receive any reaction from the Union Producing Company to that letter? I might place all of them before you. Here is the Union Producing Company letter, Exhibit XXX, and the Union Producing Company letters YYY and ZZZ, which constitute a string of correspondence beginning with this notification that the [2448] Union Producing Company in buying your Multiflex and Nu-Coil scratchers is infringing Wright patent No. '317.
- A. This chain of correspondence relates to Mr. Scofield's notification to the Union Producing Company and to other companies that the Multiflex and Nu-Coil scratcher of B & W was an infringement of the Wright patent 2,374,317, and did have a serious effect on our business.
- Q. Were you called upon by the Union Producing Company to explain what the circumstances were at that time?

 A. Yes, we were.

- Q. When?
- A. After they had received these letters from Mr. Scofield. There is one letter here, Exhibit WWW, dated July 28, 1950, that includes this notice of infringement.

There is another letter, XXX, dated July 28, 1950, referring to Mr. Scofield's request made to the Union Producing Company for their records and their purchases of B & W Multiflex and Nu-Coil scratchers. The letter of YYY dated August 3, 1950, is the reply to Mr. Scofield's letter of July 28th requesting further information from Mr. Scofield.

- Q. Were you called upon—
- A. Excuse me. I want to finish.
- Q. Go ahead.
- A. And Exhibit ZZZ is a letter from Mr. Scofield dated August 8, 1950, in reply to Mr. Fiser and including this [2449] additional information as to his reasons for having charged infringement.
- Q. Did these letters to Union Producing Company cause the Union Producing Company to stop buying Multiflex and Nu-Coil scratchers?
- A. That was the outcome of it. The field department stopped purchases not only of B & W Multiflex and Nu-Coil scratchers, but of B & W equipment generally.
- Q. Isn't it a fact, Mr. Barkis, that Union Producing Company stopped buying scratchers from anybody, either plaintiff or defendants, to your knowledge, because of this correspondence?
 - A. I have testified that Mr. Quigles who was the

head man of that company has a very distinct aversion to litigation, and patent litigation especially; and he stated very outspokenly that he does not want any part of it. And when this thing was brought up by Mr. Scofield in 1950, my recollection is that Mr. Quigles said, "Why, we won't use anything at all. We will just stop using it all."

Q. Has that condition continued up until nearly the present time, Mr. Barkis?

A. As I have testified, it was just recently another cementing committee was appointed and they are reviewing that company's cementing activities right now. [2450]

Q. (By Mr. L. E. Lyon): You don't know how early it was in the year 1950 that Union Producing Company stopped buying scratchers from anybody, do you?

A. No, I don't have the recollection of the exact information on that.

Q. I place before you correspondence with The Texas Company, beginning with a letter marked for identification as Exhibit VV, and I will ask Mr. Scofield if he will stipulate that this is a true copy of a letter sent by him to Mr. W. C. Kneale, manager of South Texas Division, The Texas Oil Company, on July 28, 1950.

Mr. Scofield: That appears to be a copy.

Mr. L. E. Lyon: Do you so stipulate?

Mr. Scofield: Yes, I think I will stipulate.

Mr. L. E. Lyon: I will offer Exhibit VV in evidence as Exhibit VV.

Mr. Smith: It is already in evidence.

Mr. L. E. Lyon: Now, it doesn't appear on here, but if it is a duplicate I will withdraw the offer and ask that it be marked "In evidence."

The Court: Exhibit VV?

Mr. L. E. Lyon: Exhibit VV.

Mr. R. F. Lyon: It is in evidence.

Mr. Scofield: Yes, it is in evidence.

Mr. L. E. Lyon: All right. Mr. Hooser, will you sign [2451] this and marked it "In evidence"?

The Clerk: Yes, sir

The Court: According to my notes, it was received on November 24th.

Mr. Scofield: On the 24th, yes, sir.

Mr. L. E. Lyon: On the slip it is not so marked, your Honor. It was received on November 24th. Put the date in.

Q. I show you three letters being marked as Exhibits VV, HHH, and III, and ask you, Mr. Barkis, if you are familiar with this correspondence.

A. Yes, I am. These three letters are addressed to individuals in The Texas Company and all of the same date and have to do with Mr. Scofield's charge that the Multiflex and Nu-Coil scratchers are infringements.

Q. Did you receive any reaction from the sending of these letters to The Texas Company?

A. Yes, we did.

Q. What reaction?

A. Mr. Kneale called me personally and asked me to come up to his office to discuss the situation.

Q. Where is his office?

A. His office is in Houston, Texas. I don't recall the name of the building there. It was not The Texas Company Building at that time. And he and I, in his office, were the only ones present, and he showed me this letter and asked me [2452] "What about it?"

Q. All right. What did you say?

A. I told him that we were in litigation with Mr. Hall, that the whole situation was confused, that a suit had been filed by Mr. Hall against us in 1947—this letter is dated 1950—and that Mr. Hall or any of the Weatherford companies had not paid us any royalty since 1946, that they had shown our patent number under their device in their own catalog in 1947, and that to my knowledge there was no patent of issue to Mr. Hall, and that I would refer the situation to your office and ask you to contact the patent department of The Texas Company in an effort to clarify the situation.

Q. Well, did these letters, the exhibits of which are before you, result in The Texas Company stopping buying Multiflex and Nu-Coil scratchers, or were you able to satisfy The Texas Company so that no such stop order was issued?

A. It is my recollection that after Mr. Stratford, who is the president of Texaco Development Company, who handled patents for the Texas Company, reviewed the situation, his conclusion was that until Mr. Hall had a patent at issue they felt that Mr. Scofield's position was poorly taken and

that they would continue to use B and W Multiflex and Nu-Coil scratchers.

- Q. And they did continue to so use them, did they not?

 A. Yes, they did. [2453]
 - Q. And continued to date, is that right?
 - A. Yes, they are still very good customers.

Mr. L. E. Lyon: Your Honor, I would like to have a recess at the present time.

The Court: We will take a five-minute recess.

(Recess.)

Q. (By Mr. L. E. Lyon): You have testified, Mr. Barkis, with reference to the receipt of these letters by The Texas Company and the Union Producing Company. By "these letters" I mean the letters threatening the companies with suit for infringement under the Wright '317 patent for purchasing your Nu-Coil and Multiflex scratchers.

Are these the only companies you know of that received this same notice?

- A. Other companies contacted me and told me that they had received either the written notice or that Mr. Hall, Sr., had called on them and had given them that message.
 - Q. What other companies were they?

A. I recall at that time, which would be in 1950, that Ed Downing, who is a head man for Magnelia Petroleum, the Socony Vacuum Oil Company at Dallas, told me that their legal department of the Magnelia Petroleum was very concerned about this charge of infringement and asked me to contact the legal department.

- Q. Did you do that? [2454] A. I did.
- Q. When?
- A. The same day that Mr. Downing talked to me. It is my recollection that I drove out to the——
- Q. You say it was the same day, but I still haven't found out what day that was.
 - A. It would be in August, 1950.
 - Q. All right. Now, you say you drove out where?
- A. To the research department of Magnolia Petroleum, which is about seven miles south and west of Dallas, and I contacted the legal or patent counsel, the gentleman that I was told was in the patent department of Magnolia Petroleum. I don't recall his name exactly. My recollection is that it was Rolgovin, R-o-l-g-o-v-i-n, or some such name as that. And I told him that Mr.—just he and I were present in his office at the research laboratory—I told him that Mr. Downing had suggested to me that I contact him, and he inquired about this [2455] situation.

I told him that Lyon & Lyon were our counsel and suggested that he contact that firm for any information that he might require to clear up his mind on it.

- Q. All right. Were there any other companies?
- A. Well, I recall at about the same time, which would be in August of 1950, that John Goodrich——
 - Q. Of what company?
- A. Of Magnolia Petroleum. He is, I would say, general superintendent of the Magnolia Petroleum's

field operations on the Gulf Coast. And he told me that Mr. Hall had been in to see him and had reviewed the patent situation with him and told him that, in his estimation, the B & W Multiflex and Nu-Coil scratchers were infringements of allowed claims that he had.

- Q. Well, was there any reference made to this claim that they were infringing the Wright '317 patent at that time?
- A. I can't recall that there was any reference to that. Mr. Goodrich was more concerned about what he termed Mr. Hall's threats that his usage of our equipment might involve his company in litigation. That is what he wanted assurance on.
- Q. Were you able to give Mr. Goodrich the necessary assurances?
- A. I told him of my talk with Ed Downing and the [2456] patent counsel, and told him that I was sure that his patent counsel had information on it and was aware of the entire situation.

The same thing with the Pure Oil Company. Charles Brown is the general superintendent of operations for Pure Oil Company on the Gulf Coast. Mr. Hall, Sr., had called on Mr. Brown and about the same conversation, the same inquiry, and I gave him the same information.

Q. Any others?

A. Well, I made a trip through the Texas Gulf Coast and over to New Orleans.

Q. When?

A. In 1950. It happened that I was about two

or three days behind the travel pattern of Mr. Hall, Sr., and I ran across quite a few inquiries about patents.

I mentioned Roy Pitre at Raywood; Mr. Watson, Lake Tool & Supply Company at Liberty, Texas: Matt Gordy, superintendent of the Stanolind Oil & Gas Company at Lafayette, Louisiana: Dick Jones of Gulf Oil Company at Lafayette, Louisiana.

Those are the ones that stand out in my recollection as having made inquiry about the patent situation.

- Q. Was there any general pattern followed by these inquiries?

 A. Yes, there was. [2457]
 - Q. What was that pattern?
- A. The pattern was that any oil company's usage of B & W Multiflex and Nu-Coil scratchers is an infringement of allowed claims that Mr. Hall had on a rotatable, slidable and tangential scratcher. They all followed that same pattern.
- Q. And you were called upon to make an explanation in each case, were you?
 - Λ. Yes, I was.
- Q. In each of the cases that you have last enumerated were you able to give a satisfactory explanation? I mean satisfactory to the customer so that they did not cease buying your equipment?
- A. I felt that I satisfied the individual. I had no way of knowing whether he had referred it on through to his divisional office or to their patent department.

Mr. L. E. Lyon: I would like to have the Rogers article, if I may, Exhibit BE, Mr. Clerk.

Q. I place before you Exhibit BE and ask you if you are familiar with this article, Mr. Barkis?

A. Yes, I am. I am familiar with the article and I know Mr. Rogers personally, of the Carter Oil Company which is a subsidiary of the Standard Oil Company of New Jersey.

Q. Mr. Rogers sets forth an article with reference to their use of scratchers. Whose scratchers are shown in these [2458] pictures?

A. This article is by Mr. J. L. Rogers and shows installation of B & W wall-cleaning guides on the casing, and describes the usage of that piece of equipment in the operations of the Carter Oil Company in the tri-state area of Illinois, Indiana and Kentucky.

Q. I will ask you to read from this article, page 100, as it appeared in the Oil & Gas Journal as of July 13, 1946, page 100, the paragraph starting: "Since commencing this program."

A. I might first state that the publishing date of this article is July 13, 1946, and the paragraph you indicated reads:

"Since commencing this program 62 of 64 jobs attempted by the same operator have been satisfactory from the standpoint of cementing, or a 97 per cent success frequency."

Q. Does that article show that they were using in all of those 64 jobs a wall-cleaning guide?

A. Yes.

- Q. And that wall-cleaning guide is shown to be the same as Exhibit 104?

 A. That is correct.
- Q. Which I hold up here. All right. And that article is a published statement of a success frequency of over 97 [2459] per cent, is that correct?
 - A. That is correct.
- Q. Humble Oil & Refining Company put on the market, I believe you testified, through the Halliburton Oil Well Cementing Company the so-called rotary scratcher; is that true?
- A. Yes, the Halliburton Oil Well Cementing Company released the Howco Roto-Cleaner which is a rotating scratcher.
 - Q. When?
- A. My recollection is the fall of 1946, following the Teplitz paper.
- Q. Is there any A.P.I. report or any report to the industry with respect to the extent of the use of the rotating type scratcher that you know of?
- A. Yes, sir. I recall that George Cannon, who is one of the co-inventors of the device and who is one of the executive equipment engineers for Humble Oil Refining Company, presented a paper that included a description of the usage of this piece of equipment, at the National meeting of the American Petroleum Institute in Chicago in 1948. The reason I recall distinctly is that I had the opportunity of discussing the paper at that time at Chicago.
- Q. Was there anyone else there who also discussed that paper?

- A. Yes, sir. My recollection is Mr. John A. Hall was [2460] there and discussed that paper.
- Q. Was Mr. Teplitz of the Gulf Company also there and discussed it?
- A. Yes, sir. The meeting was devoted to several papers on cementing. And Mr. Hassebroek, also of Halliburton Oil Well Cementing Company, who was the co-author with Teplitz of the paper in 1946, was there, certain Stanolind Oil & Gas personnel, and there was a very large attendance.
- Q. I place before you what was handed to me as an abstract of that talk given by Mr. Cannon in which it states: "During the past two years there have been more than 30,000 Roto-Cleaning units used on oil well casing," and ask you if you can tell me what that refers to?
- A. A unit of rotating casing is five feet. It is a horizontal strip that extends vertically on the casing and is tack-welded to the casing. 30,000 strips would be 150,000 feet over all.
- Q. Besides Halliburton, what other companies were making rotating type scratchers at that time?
 - A. There was no other company making.
 - Q. At what time are you speaking of?
 - A. Of 1946.
 - Q. I mean in the time of this article in 1948.
- A. Oh, in 1947, late 1947, B & W released their rotating scratcher. [2461]
- Q. I have two devices in my hands, Mr. Barkis, one in my left hand; what is that?
 - A. That is a piece of Howco Roto-Cleaner.

Q. A Halliburton rotary wall scratcher, is it?

A. Which was invented by George Cannon and Carl Reistle of Humble Oil & Refining Company, and was then turned over to Standard Development Company, who in turn licensed Halliburton Oil Well Cementing Company. And of significance also is Humble Oil Refining Company, my understanding, are large stockholders of Halliburton Oil Well Cementing Company.

Mr. L. E. Lyon: Now, I will ask that this device as just identified by the witness be received in evidence as Defendants' Exhibit next in order. [2462]

* * *

The Court: Very well, the objection is overruled. The device now offered is received in evidence as Defendants' Exhibit DT.

(The object referred to, and marked Defendants' Exhibit DT, was received in evidence.)

The Court: How is it described, Mr. Lyon?

Mr. L. E. Lyon: That is the Halliburton Oil Well Cementing Company rotary type scratcher.

Mr. Scofield: Will it appear on the record, too, your Honor, if that is the line of reasoning that they intend to take with regard to these devices of Halliburton Oil Well Cementing Company, it applies as well to the loss of sales of defendants as of plaintiff?

Mr. L. E. Lyon: It may very well. We can't deny that.

The Court: Do you offer the other device?

Mr. L. E. Lyon: I will just as soon as I get it identified, your Honor.

- Q. I have in my right hand, Mr. Barkis, another scratcher. Will you tell me what that is?
- A. That is B & W rotating scratcher with the Multiflex-type bristle.
 - Q. That was brought out by B & W when?
 - A. About November or December, 1947.
- Q. Is this device pictured by Mr. Cannon in his article before the A.P.I. that you have referred to? [2464]
- A. Yes, it is illustrated in the Cannon technical article.
 - Q. Given before the A.P.I. meeting?
 - A. Figure 1, yes.
 - Q. And you were present at that meeting?
 - A. Yes, I was.
- Q. And the statement with respect to those 30,000 units being sold, did it include both your rotating scratcher as well as the Halliburton-type scratcher?
 - A. That is my opinion.

Mr. L. E. Lyon: I will offer the B & W rotating type of scratcher in evidence as Defendants' Exhibit next in order, which will be DU.

The Clerk: DU.

Mr. L. E. Lyon: And ask that it be so marked.

The Court: Is there objection?

Mr. Scofield: No. If one goes in, I think both should go in.

The Court: Received in evidence.

(The object referred to, and marked Defendants' Exhibit DU, was received in evidence.)

- Q. (By Mr. L. E. Lyon): Mr. Barkis, these rotating-type scratchers are used in what manner as differentiated from the scratchers of the Nu-Coil, Multiflex, and Weatherford types and the wall-cleaning guides which we have here [2465] referred to in this case?
- A. After easing reaches bottom of the well and prior to the cementing operation there are only three things that can be done with the easing; it can be allowed to remain at rest; it can be reciprocated; or it can be rotated. And the devices which I have just testified to——
- Q. That is, DT and DU which I have in my hand?
- A. Exhibits DT and DU are used in connection with the rotation of casing during the cementing operation.
- Q. As differentiated from reciprocation of the casing?
 - A. Yes, with the collar-type scratcher.
- Q. And by the collar type you mean the type that is here—— A. Exhibit 104.
 - Q. —and your Nu-Coil?
 - A. Nu-Coil and the Multiflex scratchers.
 - Q. And the Weatherford type?
 - A. And the Weatherford-type scratchers.
- Q. Mr. Barkis, you state that Mr. Teplitz was present when Mr. Cannon gave this paper before

the A.P.I. I will ask you if you recall at that meeting that Mr. Teplitz made a statement with respect to the use of the reciprocating-type scratcher and to the success frequency of the Gulf Oil Company in the use of the Weatherford scratcher? Do you recall that? [2466]

A. I would prefer to refresh my memory from the printed report.

Q. All right. You find it. You closed it.

Mr. Scofield: Mr. Bargion, would you read that last question? That is the "success frequency" of what?

Mr. L. E. Lyon: Of a reciprocating-type scratcher.

(The question referred to was read.)

Mr. L. E. Lyon: Reciprocating type.

The Witness: I have now reviewed the Teplitz discussion of the Cannon paper on page 131 of the A.P.I. Yearbook for 1948, and I read from paragraph 4 of the Teplitz discussion, and I quote:

"Without going further into the relative merits of the two systems"——

Q. (By Mr. L. E. Lyon): The two systems being what?

A. That would be the system of reciprocation or of rotation of the casing during the cementing operation, and I will continue:

——"It might be of interest to cite our company's over-all record of greater than 90 per cent of completions without squeezing, in ap-

proximately 400 wells in which the reciprocating equipment was used in setting the casing. This figure includes certain areas where, prior to the use of this technique, 9 out of every 10 wells were squeezed at the time of [2467] completion—not merely as a precautionary, but as a necessary, measure."

- Q. And at that time, to your knowledge, what scratchers were being manufactured and used by the Gulf Company—were being used? I don't mean that the Gulf Company was manufacturing any.
- A. This paper was presented in November of 1948. A very large bulk of the scratcher equipment and the centralizer equipment being used by the Gulf Oil Corporation was Weatherford at that time. But I have testified that during 1948 I had made several field jobs with Teplitz in an effort to interest the Gulf Oil Corporation in using the B and W Multiflex scratcher and the B and W centralizers, and we had sold some equipment but not very much to the Gulf Oil Corporation at that time.
- Q. How many wells did you work on with Teplitz at that time?

 A. How many wells?
 - Q. Yes.
- A. My recollection is that there were about five or six wells included in the test program.
- Q. Were all those successful completions that you had on that test program?
- A. Yes. They were. They used their established test program of caliper surveys, the use of Carnotite in [2468] the cement slurry to establish the

top of the cement column, with gamma-ray survey caliper surveys, in other words, using the who program. [2469]

Mr. L. E. Lyon: As far as I have been able to find, your Honor, this letter has not previously been identified. It has, however, been submitted to coursel for plaintiff and it is the letter which I referred to this morning and thought was in evidence. It is a letter dated June 29, 1951, addressed to the "Commissioner of Patents, Washington 25, D. C.

re Register of Patents Available for License of Sale."

I will ask this witness if he can identify the

letter?
A. Yes, I can.

Q. Is that a true copy of the letter that was ser to the Patent Office on or about that date?

A. Yes, it is.

Q. On behalf of B & W?

Λ. On behalf of B & W.

Q. Was it signed by you?

A. Yes, it was signed by me as president.

Mr. L. E. Lyon: I will offer this document i evidence as Defendants' Exhibit DV.

Mr. Scofield: No objection. [2470]

The Court: Received in evidence.

(The document referred to, and marked Defendants' Exhibit DV, was received in evidence.)

Mr. L. E. Lyon: I suppose that you will also stipulate, Mr. Scofield, that pursuant to that letter the three patents listed in the letter were placed on the Patent Office register as patents available for licensing or sale, as shown on January 1, 1952, in the Official Gazette of the Patent Office on page 13 thereof?

Mr. Scofield: I will so stipulate.

Mr. L. E. Lyon: And will stipulate that a photostatic copy of that notice of publication may be received in evidence in lieu of the original book which I have in my hand?

Mr. Scofield: That is agreeable.

The Court: So ordered.

Mr. L. E. Lyon: I will ask that that page of the Official Gazette, or, rather, the photostatic copy of it that will replace that page, be marked as the defendants' exhibit next in order.

The Court: That will be Defendants' DW, will it, Mr. Clerk?

The Clerk: DW.

The Court: Received in evidence.

Mr. Scofield: How about DV-1?

Mr. L. E. Lyon: It don't make any difference to me. [2471]

The Court: Is it related to DV?

Mr. L. E. Lyon: Yes, it is, your Honor.

The Court: Very well, let it be marked in evidence as Defendants' Exhibit DV-1.

(The document referred to, and marked De-

fendants' Exhibit DV-1, was received in ev dence.)

Q. (By Mr. L. E. Lyon): Mr. Barkis, the morning you were testifying about the plug which you used in cementing. Just so that the court might be able to visualize what a cement plug is, since there has been testimony of it, I hand you a device marked "International Cementing Co. 65% A.P.I. and ask you what that is?

A. That is the cementing plug that I referred to in my testimony this morning. This is the flexible rubber upper section that, along with the balance of the plug, results in a barrier between the cement slurry and the mud fluid that is used to pump the cement slurry into position. [2472]

Mr. L. E. Lyon: For the convenience of ever body, your Honor, and I don't know whether you Honor has fully visualized this cementing plug ar whether you want it and think it appropriate offer it in evidence or not—

Mr. Scofield: I have no objection.

Mr. L. E. Lyon: It is only for the education of the court, that is all I am producing it for.

The Court: It might be very helpful in unde standing this entire procedure.

Mr. L. E. Lyon: All right. I will offer in ev dence this rubber cementing plug as Defendant Exhibit DW.

The Court: It is received in evidence. It is specimen of rubber cementing plug, is that it?

Mr. L. E. Lyon: That is right, your Honor.

(The rubber cementing plug referred to, marked Defendants' Exhibit DW, was received in evidence.)

Q. (By Mr. L. E. Lyon): You testified this morning, Mr. Barkis, to the paper presented by Mr. George E. Cannon to the A.P.I. meeting, I believe, in 1948, and read certain excerpts from that article.

I hand to you a completed printed article and ask you if that is what you were referring to.

- A. Yes, this is the technical article by Cannon that I referred to.
- Q. And it has a printed excerpt of your remarks at the [2473] tail end under "Discussion"?
 - A. That is correct, on page 131.
 - Q. And that of A. J. Teplitz following?
 - A. His discussion follows.
 - Q. And was there a discussion of John A. Hall?
 - A. John A. Hall also discussed the paper.
 - Q. And W. E. Hassebroek?
- A. W. E. Hassebroek, of Halliburton Cementing Company, also discussed the paper.
- Q. They were all present and you heard them give those discussions at that time and place?
 - A. Yes, I did. I attended the meeting.

Mr. L. E. Lyon: I offer the paper just identified by the witness, which has not been heretofore marked, in evidence as Defendants' Exhibit DX.

The Court: DX, Mr. Clerk.

The Clerk: DX.

The Court: It is received in evidence.

(The document referred to, marked Defendants' Exhibit DX, was received in evidence.)

Mr. Scofield: Is that a joint paper of Cannon and Reistle?

The Witness: No, it was not. Mr. Scofield: Or just Cannon?

The Witness: It was authored by Cannon personally. [2474]

Q. (By Mr. L. E. Lyon): Mr. Barkis, there has been considerable testimony with respect to supply companies in this picture. What position in the picture of the oil tool and equipment field does a supply company have?

A. The oil companies years ago warehoused their own equipment, they purchased from maufacturers, maintained their own warehouses, and attempted to supply their own needs.

Along in about 1925 this situation changed and supply companies came into very active participation in meeting the equipment requirements of the oil companies.

The supply companies stock equipment, they provide equipment on direct purchase and delivery to the oil company, they invoice the customer, and are looked to by the oil companies to provide all of these services.

There has been a shortage of steel during the war years and after the war years. There is a rather close relationship between the providing of steel

tubular goods, casing, and the providing of the supplies. The supply company is expected to cooperate with the oil companies if they furnish casing for the oil companies.

The supplier is rather jealous of his place in the picture, resents the manufacturer of oil-field equipment and specialties selling directly to the oil companies, and very often, when the supply company phones in or sends in a written purchase order to the manufacturer, he withholds— [2475] and intentionally—the name of his customer.

There are times when the supply company will forward the request of the oil company for field delivery and installation of the equipment, field service, and I am speaking of scratchers or other similar specialties, but this is not all of the time. My analysis shows that service is not provided in the majority but in the minority of cases.

The usual supplier's commission ranges from 5 per cent up to 30 per cent. The accepted general average is 15 per cent, which the manufacturer grants to a supplier as his commission for either stocking or handling or invoicing or selling, and the supply companies provide a selling service.

So that has come into general practice as being the relationship between the supply company and the oil company and the manufacturer. [2476]

Cross-Examination

By Mr. Scofield:

Q. How were these 60-cent royalty notices applied to the B & W invoices that were issued by either your company, your distributors or by the supply stores?

A. It is my understanding of your question, how was it attached to the invoice?

Q. Yes, how were they attached, how was the notice applied to the invoice?

A. We placed a rubber stamp on our invoices, that is, B & W, Inc., did. It is my recollection that we furnished a similar rubber stamp to our distributors. But as far as the suppliers, I have no recollection of just how that was handled. [2586]

* * *

Q. How many distributors did you have at the time—well, let us first establish the date when these notices were stamped on the invoices. And in order to refresh your recollection I put before you a copy of the injunction which is attached to Exhibit TTT, and the injunction is dated January 25, 1952.

Mr. L. E. Lyon: I will stipulate that these were started to be stamped in July of 1951, the approximate date of the letter addressed to the Patent Office, and that date placing the patents on the register.

Mr. Scofield: I will accept the stipulation. That date was July of 1951?

Mr. L. E. Lyon: Right.

Q. (By Mr. Scofield): How many distributors did you have at that time or dealers?

A. I would have to testify from recollection. J. L. Robinson in Great Bend, Kansas. I do not recall just whether the deal with Mr. Lewis of the Hub Supply Company had been made in Shreveport, Louisiana, at that time or not. I would have to refer to the records on that. As far as Emerick at Casper, Wyoming, it is my recollection that he was operating [2587] at that time. The Fuller Equipment Company deal in Odessa, Texas, was made, I believe, just before that.

Q. How about Somner in Shreveport?

A. Somner was never a distributor, Mr. Scoffeld. Somner was purely a supplier. There was never any contractual arrangement with Somner whatever. He was merely acting as the supply company.

Q. Any other distributors?

A. Not within the United States. And I am not familiar enough with the Canadian situation to testify on that. [2588]

Q. (By Mr. Scofield): What was the problem that confronted the industry in 1939 with respect to well completion?

A. There were many problems in connection with well completion. I assume that you are referring to the cementing of casing in oil wells.

Q. Yes.

A. Prior to the development of the gun perforator, it had been universal practice to cement the

casing over the productive section, and on the Gulf coast the productive sections are comparatively thin. The wells would then be drilled into the producing sand, and a wire screen set to [2597] control the sand and allow the well to produce through the screen and upwardly through the casing.

With the introduction of the gun perforator on the Gulf coast in about 1935, when Lane-Wells moved their first truck to the Gulf coast, the companies, because of this situation of having thin sands and multiple sands, decided that in well completions it was more economical and practical to cement the casing, one single string of casing, through several productive sands.

Where it had been a relatively easy operation to get a cement sealing around the bottom few feet of the casing to separate any gas or water from above the productive sand entering into the productive sand, as soon as the gun perforator or selective-completion method came into being, these sands may have been positioned, oh, 100 or 1,000 feet above the cementing depth of the casing; in cementing the casing and in using the centralizers that were then in existence and which were used, the cement slurry, being fluid, traveled to the point of least resistance in the annulus between the casing and the wall of the hole, and only removed a portion of the mud fluid and mud-filter cake in that area. That was common practice from 1935 until scratchers came into usage on the Gulf coast. And

in those years the practice of squeeze cementing was developed, and Halliburton Oil Well Cementing Company, Baker Oil Tools, [2598] Brown Oil Tools, and several other large service organizations developed so-called squeeze tools, cement retainers and other devices for introducing more cement in a secondary cementing operation to replace the residual mud cake that was left in this annulus area and which provided channels for the gas and water to intermix with the oil and contaminate the clean oil production. That was the development of the squeeze-cementing technique.

One thing stands out in my mind: The Humble Oil & Refining Company is the largest producer of oil in the United States.

Q. That is the Standard Oil of New Jersey?

A. It is the Standard, it is connected with—I question whether it is a subsidiary. It is an individual company, but it is the largest producer of oil in the United States.

One of the managers of that company had told me that squeeze cementing, which was prevalent on the Gulf coast at that time, was costing the industry five million dollars a year, and they encouraged me to help them and afforded full opportunity of testing the B and W wall-cleaning guide in the early work on the Gulf coast.

I again stress the point that centralizers were in common use at that time, of all forms, whether they were straight bow or spiral bow. But no centralizer had provided any [2599] solution for the cementing (Testimony of Bruce Barkis.) problem or had been adequate in eliminating squeeze cementing.

- Q. So that this squeeze-cementing technique was recognized throughout the industry as a major problem, was it not?
- A. Yes, it definitely was. Now, wait just a moment. Squeeze cementing was not the problem. Squeeze cementing was the remedy for the cementing problem. The proposition of leaving mud cake behind the casing was the problem. Squeeze cementing was only the cure for having done a poor cementing operation when scratchers were not used.
- Q. Well, then, let us get at the elements of the problem itself. First there was the fact that you did not get a complete annular column of cement due to this channeling, as you call it; was that one of the elements of the problem?
- A. Channeling has always been recognized as one of the problems connected with cementing.
- Q. And channeling means that you do not get a complete annulus or a complete cement column around your casing?
- A. Channeling—For a long time in the oil industry, practical men were of the opinion that the cement slurry would scour mud cake from the formation face. That was a common expression, "Use more cement and scour the mud cake." That was discredited, entirely discredited.

And channeling means that when the cement slurry is [2600] ascending in the annulus area, that the cement slurry is not capable of scouring the

mud cake, and as a fluid it only goes to the point of least resistance and may travel around the easing and in its own pattern, and definitely will not travel upwardly in a full column to scour all of the mud ahead of it. That is not done.

- Q. So, instead of getting a complete solid column, you have a column which is perforated or is channeled throughout by means of these mud channels, is that correct?
- A. Well, as described in the Teplitz-Hassebrock paper, channeling results in leaving half mud and half cement behind the easing when no scratchers are used.
- Q. Now, there was another element of this problem, was there not, and that was obtaining a bond with the formation? A. That is correct.
- Q. And how did the scratcher or abrading elements attempt to cure that?
- A. The action of the scratcher is to expose the formation, to present a clean surface for the cement to bond to. Now, cement slurry is, as I have testified, a mixture of oil-well cement or Portland cement and about seven gallons of water. Only a portion of that water is required to hydrate the cement particles in a cubic foot of cement, and with the exposure of the formation there was an area where the additional water, or water above that [2601] required to hydrate the cement, may filter into the formation and create a bond with the [2602] formation.
- Q. I am going to read you a paragraph and ask you whether or not this is a fair statement of the

(Testimony of Bruce Barkis.) problem as it was recognized in the industry at that time.

"In the rotary method of well drilling it is the general practice to pump rotary mud through the well to cool and lubricate the drilling tools and to carry away the cuttings. The rotary mud collects on the wall of the well bore and during the drilling operation may assist in preventing caving of the bore and the entrance of unwanted fluid to the well.

"However, when a casing is to be cemented in the well, the coating of slime or mud on the wall of the bore prevents the cement from directly engaging and bonding with the earth formation and is often the cause of faulty and unsuccessful cementing operations.

"It has been found that the layer of mud on the wall of the well bore washes away and shrinks following the cementing of a casing, and allows water or other unwanted fluids to enter the well."

Would you say that that was a fair statement of the problem?

A. Just from your first reading I would have difficulty. I would like to read it myself and study it. I can think of a couple of statements in there that I would not fully agree with. [2603]

Mr. Scofield: Would you read it back to him, Mr. Bargion?

Mr. L. E. Lyon: I think you had a complete answer. The witness stated that he did not agree with part of it. If he don't agree with part of it, he certainly don't agree with all of it.

- Q. (By Mr. Scofield): What part don't you agree with, Mr. Barkis?
- A. If the paper were placed in front of me so that I could select those particular words, why, there is one sentence that stands out that I don't believe I could fully agree with.

Mr. Scofield (Exhibiting document to witness): If you have any difficulty with my handwriting?

A. The last paragraph, without reading the entire statement, and only referring to the last sentence, which reads:

"It has been found that the layer of mud on the wall of the well bore washes away and shrinks following the cementing of the casing and allows water or other unwanted fluids to enter the well."

I can't agree entirely with that.

- Q. What is your objection to that?
- A. Well, I don't believe it happens.
- Q. Do you mean by that answer that after the cement column has been formed, that the portions that have not [2604] been filled with cement do not tend to shrink or wash away?
- A. It is a situation that exists down in a well bore, and I don't know of any research work that has ever done anything about the shrinking of mud cake, and it is on that basis that I could not agree with the statement.
- Q. What process was it that Mr. Wright proposed to you or brought to you in 1939 just prior to the forming of B & W, Inc.?
- A. The idea of the process that Mr. Wright brought to me at that time set out in Patent No.—

method patent, and it is covered by some of the early patents. It had to do with the cementing of easing in oil wells and the landing of perforated liners through productive sections and cleaning of mud cake from the face of the productive sections.

- Q. In your previous answer you have referred to a method patent. I put before you Exhibit 37. Is that the method patent you referred to?
- A. Yes, that is the method patent, 2,338,372, that I referred to. [2605]
- Q. Did the process which Mr. Wright proposed have to do with cementing of the well bore or conditioning the well prior to cementing?

The Court: Or both?

Mr. Scofield: Either or both.

The Court: You may answer the question.

- A. The question, to my mind, is confusing. The cementing of the well bore, you cement casing in the well bore, and the idea Mr. Wright brought to me was the cementing [2607] of casing in a well bore. That was the placement of a cement plug in an open well bore came later. But the original idea was as outlined in Exhibit 37, the cementing of casing in a well bore; and also, as I have testified, the removal of the mud cake from behind a perforated liner through the productive section of the well, where the casing is set above the productive section as is common in California.
- Q. (By Mr. Scofield): The process Mr. Wright gave to you or proposed to you is contained in the

method patent which is Exhibit 37, is that correct?

- A. Yes, it is. It is set out in this patent of issue here. Probably if I had to do it over again I could do better, but this is it.
- Q. And that is the method patent that you notified the Gulf about in your telegram which is here as Exhibit 19?
- Mr. L. E. Lyon: Your Honor, the telegram is the best evidence of what its contents are. I object to it on that ground.

Mr. Scofield: I want him to identify this method patent, your Honor, with the telegram.

The Court: Very well. Place the exhibit before the witness.

A. Exhibit 19 is a telegram to Paul Foote of the Gulf Oil Corporation in Pittsburgh, signed by myself. To answer your question I only refer to that part of the telegram [2608] referring to your question. I feel that this is the one that you refer to:

"The So-called Weatherford Formula Is an Infringement of the B. and W. Method, Using an Excessive Amount of Equipment in Relation to the Average Usage of B. and W. Equipment by Shell, Humble, Pure, Sun, Phillips and Others on the Gulf Coast."

That is the sentence I believe you referred to, and the B & W method that is referred to is the B & W method outlined in Exhibit 37, Patent No. 2,388,372; and also it is my understanding certain claims of other patents that have been mentioned this morning.

Q. (By Mr. Scofield): And was that the method that was referred to in these 60-cent royalty notices?

A. That is my understanding.

* * *

Q. (By Mr. Scofield): Did you ever object to the placing of the patent number of Wright's patent on Mr. Hall's [2609] advertising?

A. I have testified that—

The Court: Not what you have testified, Mr. Barkis. Just answer the question: Did you ever object?

- A. I can't recall that I did. I attempted to explain the usage of it when questioned why it was put on there, but I can't say that I objected.
- Q. (By Mr. Scofield): You had many inquiries from people as to the marking of the Hall advertising, did you not?
 - A. Do you mean the usage of our patent number?
 - Q. Yes. A. In Hall's 1947 advertising?
 - Q. Yes.

A. That is correct. There was a very considerable reaction in the industry about that.

Q. And did you ever refer one of those inquiries to Mr. Hall?

A. No. I have had very few contacts with Mr. Hall.

Q. Or did you ever on any occasion tell Mr. Hall that he should not put that number on his advertising? A. No, I don't believe I did. [2610]

* * *

A. Prior to the release of the Multiflex scratcher, the wall-cleaning guide was the only piece of equipment, scratcher equipment, that B and W was offering to the oil [2629] industry, so the sales of scratchers would be all of that particular device.

Q. And constituted 100 per cent of the scratcher business of B and W?

A. That is correct. [2630]

* * *

The Court: Stipulated that these four volumes of the Doble deposition may be received in evidence and be considered as the testimony pro tanto, at least, of Mr. Doble?

Mr. Scofield: Yes, sir; I will so [2640] stipulate.

Mr. L. E. Lyon: At this time I will also offer in evidence the five volumes of the testimony given by Kenneth A. Wright in the two proceedings, one of them beginning on February 4, 1953, and being in three volumes, and the other his deposition being that of June 4, 1953, and being in two volumes.

I would likewise ask that these depositions be copied into the record and the originals returned to me, and that we have the same provision with respect to the exhibits identified in those depositions, that they will have to be correlated with the exhibits that are here, and the stipulation will have to be endeavored to be made with reference to those, because I

do not desire to try to put a witness on the stand and say: "Is this exhibit the same as the one you were talking about there?"

The Court: Is there objection to that procedure? Mr. Scofield: No, I have no objection to that.

The Court: May it be stipulated that the five volumes of the Wright depositions be received in evidence upon this trial as pro tanto the testimony of the witness Kenneth A. Wright?

Mr. Scofield: I will so stipulate. [2643]

DEPOSITION OF WILLIAM A. DOBLE

WILLIAM A. DOBLE

a witness produced on behalf of the Petitioner, having been first duly sworn to testify the truth, the whole truth and nothing but the truth, upon oral interrogatories, deposed and testified as follows:

Direct Examination

By Mr. Lyon:

Q.1: Will you state your full name, residence and occupation?

A. William A. Doble. My residence is 45 Lloyden Drive in Atherton, California. My occupation is mechanical engineer, specializing in patent matters.

Q.2: Are you admitted to practice before the United States Patent Office? A. Yes, sir.

Q.3: Do you have your registry number available?

A. No, I don't. I believe I have it. It may be in my brief bag.

Q.4: How long have you been engaged in the pursuit of mechanical engineering problems in connection with patent matters?

A. Since, oh, I would say roughly about 1926.

Q.5: Prior to 1926 what was your occupation?

A. My occupation was related to the experimenttation and development of oil burning [2642-2] equipment, steam producing power plants, heat plants, and automotive equipment.

Q.6: You state you are a mechanical engineer. Are you a graduate mechanical engineer?

A. No, sir, I am not. I left Stanford during the first World War on the insistence of the Army. They needed mechanical engineers, and I was commissioned First Lieutenant in Ordnance at the first part of the First World War, and served as First Lieutenant during the First World War. I am a professional engineer, a professional engineer in the State of California, and the registration number is 4951.

Q.7: You say that you were commissioned a Lieutenant in Ordnance work in the First World War. Did you follow that into the Second World War? A. Yes.

Q.8: Are you now in any way connected with the United States Army?

A. I am a Reserve Officer in the United States Army.

Q.9: What rank? A. Full Colonel.

Q.10: Have you ever taken out any patents of

(Deposition of William A. Doble.)
your own?
A. Yes, I have. [2642-3]

Q.11: About how many?

A. Oh, I would say about four or five.

Q.12: Have you ever acted as an expert witness in any other actions?

A. Yes, sir, about thirty, slightly over thirty.

Q.13: In what courts?

A. The Federal Courts of other states, in the present Circuit Court, and also in the Cincinnati area, Tulsa, Oaklahoma. I guess Seattle and Portland are in the same District.

Q.14: Has the Circuit Court of Appeals of any Circuit Court recognized your qualifications as a patent expert?

A. Yes, sir.

Q.15: In what case?

A. It was one of the Killifer cases, I believe. I forget the exact title of the case. I usually have that with me, but I don't have my list of qualifications today.

Q.16: Maybe I can supply it for you.

A. I can supply that information later.

Q.17: It was either International Harvester versus Killifer or Dinuba versus Killifer?

A. Yes. [2642-4]

Q.18: Both reported, both reports of the Circuit Court of Appeals of the Ninth Circuit?

A. Yes, sir.

Q.19: You will supply the precise citation later; is that it Mr. Doble? A. Yes, I will be glad to.

Q.20: I hand you a photostatic copy of Page 37 of the Oil Weekly of July 7, 1941, showing the advertisement of the Weatherford Spring Company.

Mr. Lyon: Will it be stipulated that this is a true photostatic copy of that page——

Mr. Scofield: So stipulated.

Mr. Lyon: ——that appeared in that magazine at that time, that date?

Mr. Scofield: So stipulated.

Q.21: (By Mr. Lyon): I will ask you if you are familiar with that page of that publication?

A. Yes sir.

Q.22: What have you had to do with that page of that publication?

Mr. Scofield: Is that the Oil Weekly?

Mr. Lyon: The Oil Weekly.

The Witness: I received a copy of the advertisement which you placed before me from you with the instructions to have an Acme wall cleaning scratcher [2642-5] made in accordance with the information contained in the advertisement, that is, the written instructions in the advertisement, as well as the information I could obtain from a photograph in the upper right-hand corner of the advertisement which I have before me.

Q.23: Were you given any other information of any kind?

A. No, excepting to make it as closely as I could to the disclosure in the advertisement before me.

Q.24: Were you told at any time what I hoped might result from such instruction by you?

A. No, sir, you just gave me the advertisement, and told me to make it as closely as I possibly could to the advertisement.

Q.25: Did you do that?

A. Yes, sir. That is for two different sizes. The size was to be three and a half inch, eight and a quarter inch, outer diameter, outside of the wires, and a five and a half inch with a standard diameter of ten and a quarter inches. I made two samples in accordance with the advertisement which I have before me.

Q.26: What length wires did you employ?

A. I employed four inch wires, and I obtained that length from the descriptive material within the advertisement. [2642-6]

Q.27: What descriptive material?

A. Reading under the paragraph entitled "Construction," quoting "The bristles are made of 15 gage spring steel in three and four inch lengths," and I chose the four inch length.

Q.28: Do you have the larger of the scratcher that you made, as you have testified, here, and if so will you produce it?

A. Yes, sir.

Q.29: You have produced a device within a ring. Will you describe what you have produced?

A. I have produced a scratcher which has a five and one-half inch inside diameter and a ten and one-quarter inch outside diameter. The outside diameter is the diameter of the outer ends of the scratcher wires, in accordance with the information I obtained from the advertisement of the Weatherford Spring Company which I have before me. I might say I also had an enlargement of the figure in the upper right-hand corner of the advertisement

enlarged to as near as we could obtain it to five and a a half inch diameter, so as to enable me to more accurately produce an Acme scratcher of the type shown in the advertisement before me.

Q.30: This scratcher is mounted in a ring. What is the ring? [2642-7]

A. The ring is merely an instrument to show the outside diameter of the wires. The ring is ten and one-quarter inches inside diameter, and illustrates how the scratcher fits within that diameter, and that substantially all of the wires engage the inner surface of the ring, thereby illustrating that the diameter of the scratcher is as closely as we could make it ten and one-quarter inches in diameter.

Q.31: Did you make this scratcher?

A. No, sir, I directed the making of the scratcher.

Q.32: Were you present when it was made?

A. Not all of the time. I visited the maker of the scratcher substantially every day, and sometimes twice a day, to see how he was progressing, and to answer any questions he had, and to check to see what the progress was in accordance with the instructions I had given him, and followed closely the advertisement of the Weatherford Spring Company.

Q.33: Where was this scratcher made?

A. The scratcher was made by the Adams-Campbell Company. I believe they are located on Los Angeles Street.

Q.34: After this scratcher was made, did I ask you, state whether I did or not, to determine what

(Deposition of William A. Doble.) the [2642-8] angular relation of the scratcher wires was with relation to the periphery of the ring?

A. I don't believe you asked me to determine that, but from an observation looking directly down on top of it they appear to be very closely tangential to the circumference of the cylindrical portion of the scratcher. You directed that I have photographs made looking down on top of it to illustrate the angular relation of the wires to the periphery of the collar or body portion of the scratcher.

Q.35: You use the word "tangential." Would you define the word as you used it?

A. As I used the word "tangential," I would define the word "tangential" as constituting a right angular line to a diameter of the scratcher at the periphery of the cylindrical surface of the scratcher.

Q.36: You say that you had photographs taken of this assembled scratcher. I have in front of me some photographs which I will hand you, and ask you if you can identify them?

A. Yes.

Q.37: In fact, there are multiple copies there, I see.

A. The photograph which I have before me now is a top plan view of the scratcher which we have just [2642-9] described mounted within the sizing ring which I have described, and it clearly shows the assembly of the two parts.

Q.38: This photograph shows the scratcher which you made or had made under your direction, as you have testified, and which scratcher is here in

front of you on the table, and which you have just referred to: is that correct?

A. That is correct.

Mr. Scofield: I object to the question, instructing the witness as to what he has testified to.

The Witness: That is correct.

Mr. Lyon I will ask that this photograph just identified by the witness be received in evidence as Petitioner's Exhibit V.

(Photograph referred to was marked by the Notary Public as Petitioner's Exhibit V, and made a part of this deposition.)

Q.39: (By Mr. Lyon): Now, you also have some other photographs in front of you. Will you tell me what they are?

A. The next photograph which I have before me illustrates the Acme scratcher, disassembled from the gaging ring, and is a top plan view, taken directly above the central axis of the [2642-10] scratcher.

Mr. Lyon: I will ask that this photograph just identified by the witness be received in evidence as Petitioner's Exhibit W.

(Photograph referred to was marked by the Notary Public as Petitioner's Exhibit W, and made a part of this deposition.)

Q.40: (By Mr. Lyon): You have a further photograph of this same scratcher in a more or less plan view, a copy of which I hand you. Tell me what that photograph is.

A. The photograph which you have just handed me is similar to Petitioner's Exhibit W, with the exception that it was endeavored to place the lens, the center of the lens directly over a peripheral point on the scratcher so as to eliminate at that point any distortion from angulation during the photographing of the scratcher.

Mr. Lyon: I will ask that this photograph be received in evidence as Petitioner's Exhibit X.

(Photograph referred to was marked by the Notary Public as Petitioner's Exhibit X, and made a part of this deposition.)

Q.41: (By Mr. Lyon): Were you present and did you direct the taking of these photographs?

A. I directed the taking. I was not present when these three photographs were taken. [2642-11]

Q.42: They were taken in accordance with your instructions?

A. Yes.

Q.43: Did you instruct the photographer in the manner in which they were to be taken?

Mr. Scofield: I object to that as leading. Let the witness tell the circumstances.

The Witness: No, Mr. Solum assisted me in various ways, and I explained to him just how I wanted the photographs taken, and he took the scratchers and the gaging ring to the photographer, and had the scratcher and ring photographed, and then I examined the resulting photographs to see that they followed out the instructions which I had given to him.

Q.44: (By Mr. Lyon): Do you know on Exhibit X which you might say is down and which is up in what photograph?

A. Yes. I believe the portion which is made in alignment with the outer periphery with the scratcher is the downward portion or the lower portion of the photograph.

Q.45: Approximately what is the angular relation of the scratcher wires to the collar, as demonstrated by Exhibit X?

Mr. Scofield: That is objected to as secondary evidence. The exhibit itself would be the [2642-12] best evidence.

The Witness: I would say that it was about as close as tangential to the periphery of the body portion of the scratcher as could be obtained in this type of structure.

Q.46: (By Mr. Lyon): Here is another photograph, which you have before you. Can you tell me what that is?

A. Yes, the photograph which you have handed me is a photograph taken directly over the cylindrical gage ring, with a ruler placed under the gage ring. One edge of the internal diameter of the gage ring was placed on the figure 5 mark of the ruler, and it will be observed that the opposite surface which engages the ruler rests at fifteen and one-quarter inches, thus clearly showing that the diameter of the ring, the internal diameter of the ring was ten and one-quarter inches in diameter.

Mr. Scofield: May I have that answer?

(The answer was read by the reporter.)

Mr. Lyon: I will ask that the photograph last identified by the witness be received in evidence as Petitioner's Exhibit Y.

(Photograph referred to was marked by the Notary Public as Petitioner's Exhibit Y, and made a part of this deposition.) [2642-13]

Q.47: (By Mr. Lyon): I notice, Mr. Doble, that the scratcher which you have made as illustrated in photograph Exhibit X has wires formed. Just tell me how the wires are formed in the first place. I don't want to tell you.

A. Each of the wires in Petitioner's Exhibit X is formed with a relatively close loop which is held by a rivet on the internal surface of the scratcher, extends parallel, substantially parallel with the radius—with the axis of the scratcher to a coil spring section, which coil spring section extends up through an opening in the cylindrical body of the scratcher, and from the point of emergence of the spring through the hole the wire extends substantially tangentially for approximately four inches from the end of the coil.

Q.48: I notice in this particular model that the coil springs, some of them extend further through the holes than others. Does that effect a material variation in any way of the angular relationship of the wire?

A. No, it does not. It was a handmade job, and

they all are not exactly duplicates. Like in most handmade jobs there is a slight variance.

Q.49: There are a number of turns in the coils. How was that determined?

A. It was determined from observing [2642-14] the coils as best we could in the photograph which appears in the Weatherford Spring Company advertisement, and in the enlargement of the figure in the upper right hand corner of the advertisement. It was rather difficult to determine just how many coils of wire there were, but we used what we thought—well, as best I could figure out the number of coils.

Q.50: Referring to this enlargement in the upper right hand corner, two coils are quite visible, are they not?

A. Yes, sir, they are.

Q.51: That is, a portion of those coils are visible, and how many turns are indicated in each of those coils from that portion of the enlargement?

A. It was very difficult to see, but it appears to be about four, but there is a part of the coil that I don't know that we can see.

Q.52: And you have produced as nearly as possible an identical coil in the scratcher which was produced under your direction?

A. Yes, sir.

Q.53: Is the manner of securing the coil internally of the collar a faithful reproduction—

A. Yes, sir.

Q.54: ——in the model? [2642-15]

A. Yes, sir.

Q.55: In the enlargement of the illustration of the Acme scratcher, or wall cleaning scratcher, the enlargement being of the July 7, 1941, advertisement, state whether or not the coils as shown in this enlargement all extend through the collar to the same degree, as far as you can tell?

A. No, they do not.

Mr. Lyon: I will offer in evidence at this time the photostatic copy of the July 7, 1941, Page 37 of the Oil Weekly which has been identified by the witness as one that he used, and which has been stipulated to be a true copy of that advertisement which appeared that day in that magazine, as Petitioner's Exhibit Z, and I will offer at this time as Petitioner's Exhibit Z-1, the enlargement which has been referred to by the witness in his testimony.

(Documents referred to were marked by the Notary Public as Petitioner's Exhibits Z and Z-1, respectively, and made a part of this deposition.)

Q.56: (By Mr. Lyon): This ring that you have identified, where was that made?

A. That was made at the plant of Adams-Campbell also, and used to gage the over-all diameter of [2642-16] the wires of Petitioner's Exhibit AA.

Q.57: Did you make the ring?

A. No, sir. I directed that they make it, so that we would be sure to get the outside diameter correct.

Q.58: That is, this ring was made under your personal direction then?

A. Yes.

Mr. Lyon: I will ask that this ring be marked as Petitioner's Exhibit BB for identification.

(Ring referred to was marked by the Notary Public as Petitioner's Exhibit BB for identification and made a part of this deposition.)

Q.59: (By Mr. Lyon): You have stated that you have made two sizes of these scratchers?

A. Yes, sir.

Q.60: Was the other a smaller or a larger one? A. It was smaller. It had an API—it was for an API casing o.d. of three and a half inches, and had an over-all diameter of eight and one-quarter inches.

Q.61: Where was this one made?

A. It was also made by Adams-Campbell at the same time that Petitioner's Exhibit AA was made.

Q.62: I hand you a photograph and I will ask you if you can identify this photograph? [2642-17]

A. Yes, sir, the photograph which you have handed me is a photograph of the three and a half inch Acme type scratcher as made in accordance with Petitioner's Exhibit Z, and the photograph was endeavored to be made at substantially the same tilted position as shown in the photograph or cut in the upper right hand corner of Petitioner's Exhibit Z.

Q.63: You have two photographs here which appear to me to be of the same structure.

A. They are. The photograph——

Mr. Scofield: Mr. Lyon, if you have got copies of those it will save time to let me look at them while he is testifying.

Q.64: (By Mr. Lyon): What you apply to that is the same thing?

A. Yes. The first photograph I had was a sample made from the negative, and only one copy was made, and later slightly enlarged photographs were made and were printed a little bit more carefully, and the same comments which I made in regard to the first photograph apply with respect to the photograph I now have before me.

Mr. Lyon: I will ask that this photograph be marked for identification as Petitioner's Exhibit CC.

(Photograph referred to was marked by the [2642-18] Notary Public as Petitioner's Exhibit CC for identification, and made a part of this deposition.)

Q.65: (By Mr. Lyon): How was this scratcher made?

A. This scratcher was made by Adams-Campbell under my directions, and in accordance with the written description and a photographic illustration appearing in Petitioner's Exhibits Z and Z-1. I directed the making of the scratcher illustrated in Petitioner's Exhibit CC, and gave to Adams-Camp-

bell a copy of the advertisement in the Oil Weekly of July 7, 1941, Petitioner's Exhibit Z, and a copy of the enlargement of the figure in the upper right hand corner, which is Petitioner's Exhibit Z-1, with the instructions that the scratcher was to be made as closely as they could make it following the description and the photographic instructions contained in the two exhibits, Petitioner's Exhibits Z and Z-1. I watched the construction, and followed it closely, and finally received the finished scratcher.

Q.66: Did you instruct them with respect to the length of the wires that were to be used?

A. Yes, sir, I did. I instructed them to make the wires four inches, in accordance with the instructions contained in the paragraph entitled "Construction" as follows: "The bristles are made of 15 gage spring [2642-19] steel in three and four inch lengths," and I chose the four inch as the length of the wires.

Mr. Scofield: What is the diameter of that collar?

Mr. Lyon: Just a minute. I will get into it.

Q.67: What size did you instruct them to make this scratcher?

A. I instructed Adams-Campbell to make the scratcher in accordance with the dimensions given as the first item under the portion entitled "Cost," where the first column of that portion has the words "API casing o.d. three and a half inches, standard outside diameter eight and one-quarter inches,"

(Deposition of William A. Doble.) and the last column under that heading is the "Price List, \$6.75."

Q.68: You have a photograph, Exhibit CC for identification, in front of you. Was that photograph taken under your direction or was it taken under someone else's direction?

A. No, it was taken under my direction, but I was not present when the photograph was actually made. I instructed Mr. Solum just how I wanted it taken; in other words, I wanted it to appear as closely as we could to the same positioning as the scratcher is mounted in the upper right hand figure of Petitioner's Exhibit Z.

Q.69: Is that a photograph of the scratcher that was produced by Adams-Campbell under your direction? [2642-20] A. Yes, sir.

Mr. Lyon: I will ask that the photograph Petitioner's Exhibit CC for identification be received in evidence as Petitioner's Exhibit CC.

Q.70: Were other photographs taken of this scratcher? A. Yes, sir.

Q.71: I hand you a set of photographs, and ask you if you can identify this set of photographs?

A. Yes, you have handed me a photograph which is a top plan view of the three and a half inch Acme scratcher, the same as shown in Petitioner's Exhibit CC, and in this instance is a top plan view of the scratcher, and is mounted within a gage ring which gages the outside diameter of the wires extending from the body portion of the

scratcher. The internal diameter of the gage ring is eight and one-quarter inches in diameter.

Mr. Lyon: I will ask that the photograph just identified by the witness be received in evidence as Petitioner's Exhibit DD.

(Photograph referred to was marked by the Notary Public as Petitioner's Exhibit DD, and made a part of this deposition.)

Q.72: (By Mr. Lyon): I hand you a photograph, and ask you if you can identify this photograph? [2642-21] A. Yes, sir, I can.

Q.73: What does this photograph show?

A. The photograph you have shown me is a view of the gage ring taken—

Q.74: Which gage ring?

A. The gage ring for the three and a half inch Acme type of scratcher, as shown in Petitioner's Exhibit DD, and is looking directly down into the bore or central opening of the gage ring. The gage ring is mounted upon a ruler. The inner surface at the left hand side is positioned on the six inch mark of the ruler. The point of the internal diameter of the ring directly opposite extends to or crosses the fourteen and one-quarter inch mark on the ruler, and clearly illustrates that the internal diameter of the gage ring is eight and one-quarter inches in diameter.

Mr. Lyon: I will ask that this photograph be received in evidence as Petitioner's Exhibit EE.

(Photograph referred to was marked by the Notary Public as Petitioner's Exhibit EE, and made a part of this deposition.)

Q.75: (By Mr. Lyon): I hand you two further photographs, and ask you if you can identify these photographs?

A. The first photograph which you have handed me is a photograph of the three and a half inch Acme type [2642-22] scratcher shown in Petitioner's Exhibit Z and also in the photographs of Petitioner's Exhibits CC and DD, and is looking directly down on top of the scratcher, with the center of the lens of the camera as close to the axial center of the scratcher as was possible to obtain.

Mr. Lyon: I will ask that this photograph just identified by the witness be received in evidence as Petitioner's Exhibit FF.

(Photograph referred to was marked by the Notary Public as Petitioner's Exhibit FF, and made a part of this deposition.)

The Witness: The second photograph which you have handed me is similar to Petitioner's Exhibit FF. However, in this case, the center of the lens of the camera was moved so that it coincided as near as it could be aligned with the outer peripheral surface and one side of the scratcher structure, so as to give a truer picture of the angular relation of the wires with relation to the

(Deposition of William A. Doble.) outer periphery of the cylindrical portion of the scratcher.

Q.76: (By Mr. Lyon): Incidentally, in this last photograph, tell me what is down.

A. Down is the portion which I would designate as the point where the back flange of the scratcher body coincides with the edge, inner front of the front [2642-23] flange of the scratcher body.

Mr. Scofield: Is the narrow edge of the collar as photographed down or up?

The Witness: Down, Mr. Scofield.

Q.77: (By Mr. Lyon): From these photographs of this so-called Acme scratcher, and from the scratcher itself, did you determine the angular relation of the scratcher wires with reference to the collar?

A. I did not make a mathematical determination of the angular relation of the wire with relation to the peripheral surface of the scratcher. However, if I place my pencil across the scratcher, and then substantially coincident with the diameter of the scratcher and gage the angle of the wire projecting outwardly from the surface of the scratcher, it appears to be beyond the tangential relation with relation to the extended diameter of the scratcher at that point.

Q.78: What do you mean by "beyond"?

A. By "beyond" I mean that the angle between the extended diameter and the adjacent wire on the side of the center of the scratcher is less than 90 degrees and similarly, conversely, the angle

between the extended portion of the wire outwardly from the center of the scratcher and outwardly from the wire is greater than 90 degrees. [2642-24]

Q.79: Greater by a substantial number of degrees or not?

A. Well, I would judge it would be about three to five degrees. I might point out that in the two scratchers, that five and a half inch and three and one-half inch scratchers which we have just referred to, as made in accordance with the advertisement in the Oil Weekly, Petitioner's Exhibit Z, that the wires extending from the periphery of the scratcher in each instance are crossed as near as we could make them to the drawing, as shown in the upper right hand corner of Petitioner's Exhibit Z.

Q.80: That is apparently a photograph in Exhibit A and not a drawing?

A. That is correct, an illustration, a photographic reproduction of some kind.

Mr. Lyon: I will offer the last photograph identified by the witness in evidence as Exhibit GG.

(The photograph referred to was marked by the Notary Public as Petitioner's Exhibit GG, and made a part of this deposition.)

Q.81: (By Mr. Lyon): Do you have, Mr. Doble, the smaller scratcher of Exhibits CC, DD, FF and GG here? A. Yes, sir.

Q.82: You have produced a scratcher inside of a [2642-25] ring? A. Yes.

Q.83: Is this the scratcher shown in the photographs, Exhibits CC, DD, FF and GG?

A. Yes, sir, it is, and as I have handed it to you it appears like the photograph of Petitioner's Exhibit DD, with the three and a half inch scratcher mounted within the gage ring.

Q.84: Does the gage ring correspond to any of these photographs?

A. Yes, the gage ring corresponds to the photographs Petitioner's Exhibits EE and DD. In Petitioner's Exhibit EE the gage ring is shown mounted on a ruler, so as to readily determine the internal diameter of the gage ring.

Mr. Lyon: I will ask that the smaller size Acme scratcher just identified by the witness be marked as Petitioner's Exhibit HH for identification, and that the gage ring identified by the witness be marked for identification as Petitioner's Exhibit II.

(Scratcher and ring referred to were marked by the Notary Public as Petitioner's Exhibits HH and II for identification, respectively, and made a part of this deposition.) [2642-26]

(A short recess was here taken.)

Q.85: (By Mr. Lyon): Mr. Doble, I hand you another photograph, a copy of which I am handing counsel, and I ask you if you can tell me what this photograph is?

A. Yes, the photograph which you have handed

me is a perspective view of the five and one-half inch Acme type scratcher made in accordance with the advertisement in the Oil Weekly, Petitioner's Exhibit Z, and the photograph was taken to approximate as closely as possible the reproduction in the upper right hand corner of Petitioners' Exhibit Z.

Q.86: That is, the photograph, the one that you have, is which one of the scratchers that are here in the room, by exhibit number?

A. By exhibit number it is Petitioner's Exhibit AA.

Mr. Lyon: I will offer this photograph in evidence as the Petitioner's Exhibit JJ.

(The photograph referred to was marked by the Notary Public as Petitioner's Exhibit JJ, and made a part of this deposition.)

Q.87: (By Mr. Lyon): Now, Mr. Doble, I asked you one other question, I believe, and that was to determine the rotational characteristics of these scratchers, and in that connection I hand you a photograph of a test [2642-27] apparatus, and I will ask you if you are familiar with this test apparatus?

A. Yes, sir, I am.

Q.88: Were you present when this photograph was taken? A. Yes, sir.

Q.89: What does this photograph show?

A. The photograph which you have handed me shows a testing mechanism, which includes a three-

legged stand, having a cylindrical supporting collar at the upper end of the three legs. It has certain brace members, two of which contain bearings with square openings for the free passage of a square reciprocating rod.

Q.90: It might be well, Mr. Doble, in order to make this description definite for you to mark on the photograph as you describe this with symbols or characters to indicate the parts you are referring to.

A. Referring again to the photograph, which I have before me, I have——

Mr. Lyon: Which I will now ask to be received in evidence, so that we can refer to it for convenience, as Petitioner's Exhibit KK.

(Photograph referred to was marked by the Notary Public as Petitioner's Exhibit KK, and made a part of this deposition.) [2642-28]

Q.91: (By Mr. Lyon): Now, will you describe Exhibit KK? It might aid you, Mr. Doble, in your description of this if I gave you some other photographs that show this device disassembled.

Here is another photograph. Are you familiar with that?

A. Yes.

Q.92: Will you tell me what that photograph is?

A. The photograph which you have just handed me illustrates the test stand without either a scratcher or a section of tube into which a scratcher is traversed.

Q.93: Were you present when this photograph was taken? A. Yes.

Mr. Lyon: I will ask that this photograph be received in evidence as Petitioner's Exhibit LL.

(The photograph referred to was marked by the Notary Public as Petitioner's Exhibit LL, and made a part of this deposition.)

Q.94: (By Mr. Lyon): I hand you another photograph, and ask you if you can identify this?

A. Yes, sir.

Q.95: Were you present when this photograph was taken? A. Yes, sir. [2642-29]

Q.96: What is this photograph?

A. This photograph shows the test stand upon which has been mounted a cylindrical barrel which is to represent the casing, that is, well casing upon which the smaller sized scratchers will be mounted for test.

Mr. Lyon: I ask that this photograph be received in evidence as Petitioner's Exhibit MM.

(Photograph referred to was marked by the Notary Public as Petitioner's Exhibit MM, and made a part of this deposition.)

Q.97: (By Mr. Lyon): Now, will you proceed? A. I will first refer to photograph of Petitioner's Exhibit LL. As I have previously stated, the test structure includes three legs. I will number those legs "1," "2" and "3," and will give number "1" to the forward leg and number "2" to the

rearmost leg and number "3" to the leg at the left hand side of the photograph. The lower end of the legs are resting upon the ground surface, and extend upwardly and are fastened to an annular ring "4." There is a series of brace rods "5," which connect the three legs directly below the annular ring "4." There is a second set of brace rods "6," which connect the three legs of the structure spaced below the brace rods "5," which I previously referred to. There is about two feet between the two sets of brace [2642-30] rods "5" and "6." Each of the series of brass rods is provided with a bearing "7." Each of the bearings "7" has a square hole through it, and mounted in that square hole is a square reciprocating rod "8." The fit between the square opening and the rod is sufficiently tight to prevent undue sidewise motion of the square rod, but permits ready reciprocation of the square rod "8." Connected to the rod end of the square rod is a cross head pin "9," to the outer ends of which is connected a pair of links "10," the upper ends of which are connected to the inner end of an actuating lever "11." The actuating lever in this portion of the structure is formed of two separate plate members, and at its forward end is provided with an angularly related handle member "12." The crank member is pivotally supported to the forward leg "1" by a bracket and bolt "13." Through the arrangement just described the square rod may be reciprocated up and down. In the photograph there is a pin "14," which extends through the forward leg "1" and above the operating lever so

as to hold it in the position shown in the photograph. When the pin is removed the crank, or operating lever "12" may be swung up and down, that is, the handle portion may be swung up and down, and through the links "11" will cause the square rod "8" to reciprocate up and [2642-31] down.

Q.98: Is it possible, Mr. Doble, in this apparatus by actuating the handle "12" to impart any twisting or rotational motion to the square rod "8"?

A. No, it is not possible to do so.

Q.99: Proceed.

A. The upper end of the square reciprocating rod "8" extends above the annular ring "4," and has mounted upon it two bearing brackets "15" and "16," which are provided with taper roller bearings for the mounting of a section of casing upon which—"16" is the forward one—upon which the scratchers are mounted to test their operation in a cylinder mounted upon the annular ring structure. I might also point out that the annular ring "4" is provided with three upstanding studs. The studs project upwardly from the upper surface of the ring for bolting or mounting upon—

Q.100: Did you number those studs?

A. No, I will number them with the numeral "17." I will give the same numeral to all three because they are alike. Those studs "17" are used to mount the flange of a cylindrical portion which contains a cylindrical barrel, in which the scratchers are to be tested.

Q.101: Will you mark that flange?

A. I would rather mark it when I come to it, [2642-32] Mr. Lyon. I prefer to refer to Petitioner's Exhibit MM next.

Q.102: All right.

A. To point out in Petitioner's MM the barrel "18" which is mounted upon the reciprocating rod "8" on the bearings held by the bearing brackets "15" and "16." The upper bearing bracket "15" is provided with a lock screw "19," which extends from a lug of bracket "15" a sufficient distance, so that when the lock screw "19" is screwed down the point of the lock screw will engage the drum "18" and prevent its rotation relative to the square reciprocating rod "8." The drum of member "18" is provided with a lower collar "20," and a removable upper collar "21." I will now refer to Petitioner's Exhibit KK. In Petitioner's Exhibit KK it will be observed that a scratcher "22" is mounted upon the drum "18," which drum simulates a casing to be lowered in an oil well.

Q.103: What is the casing member?

A. The casing member is "18." We had that number before.

Q.104: You called it "drum" instead of "casing"?

A. I said it simulates a casing that is lowered into a well.

Q.105: Pardon me, I misunderstood [2642-33] you.

A. Mounted on top of the annular ring or member "4" is a disk "23." The disk has a central opening into which tubular section "24" is securely fastened. The tubular section "24" is provided to represent the internal bore of a well, and it will be observed that wing nuts "25" are positioned on the stud "17" to securely retain the flange "23" of the tubular portion "24" securely on the test stand.

Q.106: Is the tubular portion "24" a cylinder? A. The tubular portion "24" is a cylinder, and

is to represent the internal bore of the well.

Q.107. You have stated that there is a scratcher "22" mounted on the drum "18." What scratcher is that?

A. That is the scratcher, the same or similar to that used by Mr. Jones, as illustrated in Figure 26, and is similar but not the same one, not the same one as shown in Petitioner's Exhibit M. The scratcher as I view it, that is, the scratcher "22" in Petitioner's Exhibit KK, I believe has thinner wires than does Petitioner's Exhibit M.

Q.108: I hand you a photograph, and ask you if you can identify that photograph?

A. Yes, you have handed me a photograph which in my opinion illustrates the scratcher "22" as shown in Petitioner's Exhibit KK, and is of the same type as used [2642-34] by Mr. Jones, and appears in the photograph, Figure 26, Exhibit I.

Mr. Lyon: I will ask that this last photograph be received in evidence as Petitioner's Exhibit NN.

(Photograph referred to was marked by the Notary Public as Petitioner's Exhibit NN, and made a part of this deposition.)

Q.109: (By Mr. Lyon): Now, were tests made utilizing this test rack, and will you describe precisely and in detail the test procedure used, taking, for example, the setup as it is illustrated in Petitioner's Exhibit KK with the particular scratcher of Exhibit NN in the test apparatus?

A. Referring to Petitioner's Exhibit KK, the test stand is shown in position to run the scratcher NN through—I had better not say "through," but into and down to the lower portion of the tubular member "24" by actuating the operating handle "12." The first thing that would be necessary to be done is to remove the pin "14" which locks the operating handle from being operated.

Q.110: First let us go back to the other end of it. How is the scratcher mounted, how is the scratcher "22" mounted?

A. The scratcher "22" is mounted on [2642-35] the drum portion "18," which simulates a well casing, and is mounted between two collars, and two collars I have designated by the numerals "20" for the lower collar and "21" for the upper collar.

Q.111: Is that scratcher free to move vertically on the drum?

A. Yes, the scratcher is free on the drum, can be moved easily by hand from, upwardly from the lower collar "20" until it engages the upper collar

"21." I did so and I rotated it. It was free to either rotate or reciprocate in whichever direction a like force was applied to the scratcher "22."

Q.112: In these tests state whether or not the drum "18" was secured to the rod "8" so as to be secured against rotation relative to the rod "8"?

A. Yes, as I pointed out before, the lock screw "19" was screwed down, and the lock screw had a conical point which entered into a depression in the upper end of the drum "18," so that it positively locked it against any rotation with relation to the reciprocating rod "8."

Q.113: Now proceed with your description of the test. You started to say you were going to pull the pin "14."

A. The pin "14" has now been pulled, and the [2642-36] operator by means of handle "12" can first lower the reciprocating rod, square reciprocating rod "8" until the ends of the wires of scratcher "22" engage the upper open end of the eylinder "24." The wires of the scratchers "22" resist entry into the internal portion of the cylinder "24," beacuse they are of slightly greater diameter, that is, the outer ends of the wires form a greater circular diameter than the internal bore of cylinder "24." So that by means of applying pressure to the operating handle "12" the wires—first of all, the scratcher will rest on the ends of the wires of the scratcher and rest at the upper end of the bore of cylinder "24," Movement of the operating handle will cause the square rod "8" to carry the drum

downward until-downwardly while the scratcher "22" remains stationary, until the upper collar "21" engages the upper face of the scratcher "22," and by applying sufficient force will then cause the wires of the scratcher to enter the bore of cylinder "24." Upon further actuation of the operating handle "12" the scratcher with its wires will be caused to move downwardly into the bore of the cylinder "24" until the end of the operating stroke of the handle "12" has been reached. Thereafter the scratcher may be returned to the upper end of the internal bore of the cylinder "24" by [2642-37] reversing the direction of movement of the handle "12." The first upward movement of the square rod "8" will be free, because the scratcher will remain stationary within the cylindrical bore "24" until the lower collar "20" of drum "18" engages the underside of the scratcher. At this point considerable force will have to be applied through the operating lever "12" to cause the wires to reverse from the bent position they received on entering this cylinder, and during the reversal I observed rotation of the sleeve portion of the scratcher with relation to the cylindrical drum "18" of the reciprocating rod "8." I would further say-

Q.114: Mr. Doble, right there I hand you a somewhat enlarged photograph of the upper end of the test apparatus, with the scratcher mounted thereon, and ask you if you can identify this enlarged photograph?

A. Yes, sir, I can.

Q.115: Were you present when this photograph was taken?

A. I was.

Q.116: Tell me what this photograph is?

A. This photograph is similar to Petitioner's Exhibit KK. However, it shows the upper portion of the test apparatus so as to enlarge the scratcher, the drum "18" and the collars "20" and "21," and associated parts [2642-38] of the mechanism. And, as I was going to point out with relation to Petitioner's Exhibit KK, the upper collar or stop ring "21" was provided with graduations, as can barely be seen in Petitioner's Exhibit KK, but can be clearly observed in the photograph which you have handed me, and it will be noted that the zero portion of the graduation has been encircled by a mark so as to make it more evident.

Mr. Lyon: I will offer the photograph last identified by the witness in evidence as Petitioner's Exhibit OO.

(Photograph referred to was marked by the Notary Public as Petitioner's Exhibit OO, and made a part of this deposition.)

Q.117: (By Mr. Lyon): Now, Mr. Doble, you have described, I believe, fully now the test procedure in reciprocating the scratcher in the test apparatus to observe its operation; is that correct?

A. That is correct, but I did not make one observation which I—we carried on during the testing, namely, we placed a mark on the scratcher, the rim of scratcher "22," and aligned that mark

with zero lead line from the graduations formed around the upper collar or stop ring "21." On the return stroke we observed that the scratcher rotated with relation to [2642-39] the reciprocating drum "18," and the rotation was easily observed by comparing the mark which we had made on the upper ring of scratcher "22" and the graduations of the first collar "21" mounted on the upper end of the reciprocating drum "18."

Q.118: Did you observe in the cylinder the path of movement of the wires, wire ends, and the pattern that they scribed on the inside of the cylinder during these reciprocations?

A. Yes, I did. At first they were very clear and distinct. Later, when we ran a number of tests, the number of lines scribed on the cylinder became quite confused. There were quite a number of them. I observed, first of all, that when the wires were forced into the bore of cylinder "24" they scribed a lead line which was not directly axial with the reciprocation of the square rod "8," and then again I observed that during the downward movement of the scratcher through the cylindrical bore "24" the lines scribed by the ends of the wires were straight, and corresponded with the reciprocating axis of the test mechanism. I also observed the wires and noted the lines scribed by the ends of the wires on the cylinder during the reversal of the stroke, that is, after the scratcher had reached bottom, and the operating lever was [2642-40]

actuated to move the scratcher upwardly in the cylinder. First there was the free motion of the mechanism until the lower collar "20" engaged the under edge of the scratcher. Then it required considerable force to cause the wires to reverse their position, and at which time it was obvious—I mean it could be observed that the sleeve or cylindrical portion of the scratcher "22" rotated with relation to the fixed—that is, the reciprocating drum "18." Upon continued upward movement of drum "18" the lines scribed by the ends of the wires were straight lines, and parallel to the axis of the operating or reciprocating rod "8."

Mr. Scofield: Will you read that answer, please?

(The answer was read by the reporter.)

Q.119: (By Mr. Lyon): Now, Mr. Doble-

A. I might say that we repeated that operation a number of times, and in each instance it was clearly discernible, the increment of rotation of the scratcher with relation to the reciprocating drum "18."

Q.120: Did the wire ends move over to a new path on each reciprocation?

A. Yes, they did.

Q.121: How did the path traced by the ends of the wires in the test which you have described compare with the lines visible between the two words "Barkis" and [2642-41] "Barkis 2" in Exhibit J?

A. They were surprisingly similar; startlingly so, in fact. I was very much surprised.

Mr. Scofield: What exhibit is that?

The Witness: J, Mr. Scofield.

Q.122: (By Mr. Lyon): You repeated that test, I believe, using the scratcher Exhibit M, or one like it?

A. One like it. The one we used had lighter wires. The reason we used lighter wires, we knew the heavy wires would scribe a good clear line, and we were not sure whether the light wires would scribe a sufficiently clear line on the cylinder, so we used the lighter one to try out, to see what type of lines it would scribe and was surprised to find it scribed very clear distinct lines, and therefore we used that test to complete our experiment or test.

(A recess was here taken at 12:00 noon until 2:15 p.m.)

Q.123: (By Mr. Lyon): Mr. Doble, I refer you to the Jesse E. Hall Application Serial No. 627,013, page 8 of that Application, and to a pragraph starting on page 8, line 17, and starting "When the casing is properly centralized," and that paragraph ending on page 9, line 19, and particularly to that portion of that paragraph which reads like this: "The unusual mechanical action of [2642-42] the abrading wires has been determined by mounting a scratcher on a piece of pipe and reciprocating it within a pipe of larger diameter." Is that what you have done here in this test apparatus, that you have identified here, as shown by these photo-

(Deposition of William A. Doble.) graphic exhibits? A. Yes, it is.

Q.124: That same sentence that I quoted from in the Hall Application Serial No. 627,013, a copy of which I handed you, is also found in the Hall Application Serial No. 55,619, on page 8, a copy of which I handed to you for verification, and the sentence in the second Application starting on line 21 of page 8 and ending upon line 23 of page 8, and reading "The unusual mechanical action of the abrading wires has been determined by mounting a scratcher on a piece of pipe and reciprocating it within a pipe of larger diameter."

That is correct, is it not, Mr. Doble?

A. Yes, it is. That is just what we endeavored to do with the test apparatus which I have described this morning, and is shown in Petitioner's Exhibits MM and LL and RR.

Q.125: I hand you a photostatic copy of what appears to be a catalogue or circular of the Weatherford Spring Company, which is entitled "Weatherford Spring Company, Weatherford Texas. Manufacturers of Spiral [2642-43] Casing Centralizers, Straight Casing Centralizers, Wall Cleaning Scratchers, Cement Retaining Baskets and Industrial Springs. Weatherford makes a science of multiple zone cementing," and I will refer you to page 8 of that catalogue where it states: "Weatherford's Reversible Scratcher crawls for a complete cleaning job. Fig. 5. A Weatherford Scratcher on casing, that is centered by spiral centralizers, has conformed to the pattern of the well

and also has crawled around its entire surface as the casing was reciprocated to remove jelled mud from key-seats and mud cake growth from out of crevices and bit rout-outs. In order to observe this crawling action and also the reversing action of the Weatherford Scratcher, the operator need only shove one into a joint of surface pipe and work it back and forth with the strength of the hands."

That is a correct reading of what is set forth in that catalogue? A. Yes, sir.

Q.126: This movement of the scratcher up and down in the pipe of this demonstration apparatus, how does it compare with the statement that is given there in the catalogue?

A. Well, generally it is the same. It would be more accurate, because it is guided by the [2642-44] reciprocating rod "8" instead of left to the inaccuracies of hand operation without a mechanical quide.

Mr. Lyon: I will ask that page 8 of this Weatherford Spring Company catalogue, rather, a photostatic copy of the copy which I have here, be received in evidence as Petitioner's Exhibit SS. I presume there is no objection to the substitution of another photostat from this photostat I have been using?

Mr. Scofield: No objection.

(Document referred to was marked by the Notary Public as Petitioner's Exhibit SS, a

photostatic copy of which is made a part of this deposition.)

Q.127: (By Mr. Lyon): Mr. Doble, in this test apparatus, which is that shown by Exhibits KK, OO, LL and MM, did you also reciprocate other scratchers at this same time that these photographs were taken?

A. May I have that question?

(The question was read by the reporter.)

The Witness: Yes.

Q.128: (By Mr. Lyon): I hand you a photograph of a scratcher and ask you if you can identify that photograph?

A. Yes, I can identify the photograph you have handed to me as a picture of one of the scratchers made by the B & W Company, and is known as a three and a [2642-45] half inch-Nu-coil scratcher.

Q.129: Was this particular scratcher mounted in this demonstration machine at that same day?

A. It was.

Q. And reciprocated therein?

A. Yes, sir.

Mr. Lyon: I will ask that the photograph of the Nu-coil scratcher identified by the witness be received in evidence as Petitioner's Exhibit TT.

(Photograph referred to was marked by the Notary Public as Petitioner's Exhibit TT, and made a part of this deposition.)

Q.130: (By Mr. Lyon): Did you observe the

action of the Nu-coil scratcher of Exhibit TT as it was reciprocated in the test apparatus at that time?

A. I did.

Q.131: Will you describe its operation?

A. Referring to Petitioner's Exhibit KK, the top retaining ring "21" was removed from the drum or cylinder "18." The scratcher designated in Petitioner's Exhibit KK by the numeral "22" was removed from the cylindrical surface of the drum "18," and in place thereof the scratcher illustrated in Petitioner's Exhibit TT, which is the three and a half inch-Nu-coil scratcher made by the B & W Company, was placed on the cylindrical [2642-46] surface of the drum "18." The top retaining ring "21" was replaced, and securely fastened in place. The operating handle was actuated to permit the wires of the scratcher, Nu-coil scratcher to engage the bore of the cylinder "24." The handle was operated so as to move the reciprocating drum "18" downwardly while the scraper, the Nu-coil scraper remained stationary with its wires resting on the top surface of the flange "23." I might say that the Nu-coil scratcher was mounted loosely on the periphery of the drum or barrel "18," so that it would freely reciprocate on that barrel, and also would freely rotate on the barrel. After the reciprocating mechanism had moved sufficiently to engage the upper ring "21" with the upper edge surface of the Nu-coil scratcher considerable force was applied to the actuating handle "12," forcing the wires of the scratcher to enter the cylindrical bore

of the cylinder "24," and as those wires entered they progressed slightly around the bore of the cylinder "24," and further movement of the actuating lever reciprocated the Nu-coil scratcher down to approximately the bottom end of the cylindrical member "24," cylinder "24," whereupon the operating handle was reversed in the direction of its movement, first causing the reciprocating drum to slide through the central bore of the Nu-coil scratcher until the lower [2642-47] confining ring or stop ring "20" engaged the lower edge of the Nucoil scratcher. Then, by applying considerable force, considerably more force to the actuating lever "12," the wires of the Nu-coil scratcher reversed their position, causing the cylindrical body portion of the scraper to rotate.

Q.132: Scratcher?

A. Or scratcher to rotate with relation to the drum "18." That could be observed during the reversal of the reciprocating motion. Then continued motion would progress the scratcher to the upper end of the bore of the cylinder "24," and at that time it could be removed or a second stroke could be taken. In operating the mechanism, the Nu-coil scratcher was adjusted so that the black mark which appears in Petitioner's Exhibit TT on the forward face was placed in alignment with the zero mark on the calibrations formed around the periphery of the upper stop collar "21," and by that arrangement it was able to determine the amount of rotation through which the cylindrical

body of the Nu-coil scratcher moved with relation to the zero reference line, and I will say on the downward stroke and on the upward stroke after it reversed the lines scratched in the cylinder were straight up and down, that is, they were in substantial alignment with the [2642-48] axis of the rotating square shaft number "8"—the reciprocating square shaft "8." The scratcher when it was placed in the manner described was operated several times, and at each reversal, either at the upper end of the stroke or the lower end of the stroke, the cylindrical body of the scratcher could be observed rotating with relation to the reciprocating drum "18."

Q.133: Is the scratcher of Exhibit TT present in the room, Mr. Doble? A. Yes, I believe it is.

Q.134: In response to my last question you have produced and handed me a scratcher.

A. Yes.

Mr. Lyon: I will ask that this scratcher be marked for identification as Petitioner's Exhibit UU.

(Scratcher referred to was marked by the Notary Public as Petitioner's Exhibit UU for identification, and made a part of this deposition.)

Q.135: (By Mr. Lyon): Mr. Doble, these tests—

A. I would like to point out one thing, if I may. Q.136: All right.

A. Now, as to Petitioner's Exhibit UU, I would

like to call attention to the black mark which appears on [2642-49] the face of the body portion of the exhibit, and show that that same line was on the exhibit when it was photographed as Petitioner's Exhibit TT, and it is the scraper, scratcher used in the test.

Q.137: Is that the indexing mark that you refer to to determine the degree of rotation of this scratcher in the test? A. Yes, sir.

Q.138: Mr. Doble, you were present when these photographs and tests that you have testified to were made. Where were they made?

A. They were made in the backyard of Mr. Wright's residence.

Q.139: That is Mr. Kenneth A. Wright, sitting here?

A. That is correct.

Q.140: Who is an officer of the B & W Company that you refer to?

A. Yes, sir, on Van Ness Avenue, I believe.

Mr. Scofield: Which photographs are you referring to, all of them or just this one?

The Witness: These tests.

Q.141: (By Mr. Lyon): These tests that you are referring to, they are all marked on the back to that fact?

A. 139 North Van Ness Avenue, I [2642-50] believe his address is. It is stated on the back of the photographs.

Q.142: Some of them are and some of them are not.

A. Exhibit TT was taken at a later date.

Q.143: It was taken at a later date?

A. Yes.

Q.144: How did the lines which were inscribed by the wires, the ends of the wires of Exhibit TT, and which is also Exhibit UU, compare with the lines inscribed or pattern on the face of the cement core between the words "Barkis 2" and "Barkis" in Figure 27, Exhibit J?

A. They were very similar.

Q.145: Were they straight lines?

A. Yes, they were straight lines, with offsets at the end of the lines where the reversal of motion took place.

Q.146: State whether or not it was only at the time of that reversal of motion that the rotation occurred.

A. Yes, that is correct.

Q.147: At that same time and same place did you test other scratchers? A. Yes, sir.

Q.148: I hand you another photograph of a scratcher, [2642-51] and ask you if you can identify that?

A. Yes, sir, the photograph which you have handed me was taken the same day in the backyard of Mr. Wright's home, and illustrates the upper portion of the test mechanism, and illustrates a large size cylinder in place of the smaller cylinder "24" of—

Q.149: By "size" you mean diameter?

A. Larger diameter than the cylinder shown in Exhibit KK.

Q.150: All right.

A. And also it shows that the reciprocating drum "18" has been removed, a larger diameter drum placed on the reciprocating rod in its place, and also it shows the mounting of a Nu-coil type of scratcher on the reciprocating drum "18."

Q.151: Did you test this scratcher as shown in this photograph at that time and place?

A. Yes, sir.

Mr. Lyon: I will ask that the photograph just identified by the witness be received in evidence as Petitioner's Exhibit VV.

(Photograph referred to was marked by the Notary Public as Petitioner's Exhibit VV, and made a part of this deposition.)

Q.152: (By Mr. Lyon): Was there any different operation [2642-52] performed in the testing of this Nu-coil scratcher than in the tests performed on the two scratchers that you have previously testified about?

A. No, the same test was run, and I will say the results were the same.

Q.153: Were the procedures the same in all of these tests? A. Yes, sir.

Q.154: Were the results the same?

A. Yes, sir.

Q.155: What does the drum represent in these tests?

A. The drum "18" in the tests represents the casing which is lowered into the well.

Q.156: Did the wires on the reciprocation of this scratcher transcribe lines on the inside wall of the larger drum which was used?

A. Yes, sir, it did.

Q.157: How did those lines compare with the lines traced by the wires as you have stated in the present tests?

A. Just the same, that is, the lines in between the reversal point at the top of the stroke and the bottom of the stroke, the lines were straight. At the reversal point top and bottom the lines swung out or [2642-53] swung around the cylinder in varying degrees, indicating that the scratcher had rotated and that the wires were moving to a new position and scratching a new series of lines up through the internal surface of the cylinder.

Q.158: Were the lines between the reversal points straight?

A. Yes, they were, and substantially parallel to the axis of reciprocation of the reciprocating rod "8."

Q.159: Was this pipe that was used in this test also a cylinder?

A. The pipe? You mean the part that has the "3B" on it?

Q.160: Yes.

A. Yes, that cylinder was a cylindrical cylinder, with constant diameter bore throughout its length.

Q.161: Did you test other scratchers this same day? A. Yes, we did.

Q.162: I hand you another photograph, and ask you if you can identify that?

A. Yes, sir, I can identify the photograph that you handed me as illustrating the upper portion of the test mechanism similar to Petitioner's Exhibit VV, with the exception that in place of the Nu-coil scratcher, [2642-54] which I might say in Petitioner's Exhibit VV was for a five and a half inch casing, in place of the Nu-coil scratcher, which had been removed, there was placed on the reciprocating drum "18" a form of scratcher which is comparable in all ways except size to Petitioner's Exhibit M.

Q.163: Were you present when this photograph was taken? A. Yes.

Q.164: And it was taken at the same place also? A. Yes, sir.

Q.165: That is, at Mr. Kenneth A. Wright's backyard?

A. Correct.

Q.166: On September 27, 1952?

A. Yes, sir.

Mr. Lyon: I will ask that this photograph be received in evidence as Petitioner's Exhibit WW.

(Photograph referred to was marked by the Notary Public as Petitioner's Exhibit WW, and made a part of this deposition.)

Q.167: (By Mr. Lyon): Was this structure tested in the same way as in the previous three tests? A. Yes, sir.

Q.168: Did the wires trace lines on the interior [2642-55] of the cylinder?

A. They did.

Q.169: How did those lines so traced compare with the lines traced by the scratchers of the three previous tests that you have testified to?

A. Just the same, varying in minor degree as to the number of wires, and in some cases as to the extent of rotation of these scratcher bodies around the reciprocating drum "18."

Q.170: How did the lines traced in this cylinder by this scratcher compare with the lines which are visible upon the cement core between the words "Barkis" and "Barkis 2" on Exhibit J?

A. Very comparable, very comparable.

Q.171: Did you test other scratchers that same day and at the same time and same place?

A. Yes, I think there was another scratcher tested that same day.

Q.172: I hand you another photograph, and ask you if you can identify that photograph?

A. You have handed me another photograph which was taken September 27 in the backyard of Mr. Wright's home, and illustrates the upper portion of the testing machine as shown in Petitioner's Exhibits VV and WW—no, excuse me, it is smaller. I will have to [2642-56] change that answer a little bit. It illustrates the same testing machine as illustrated in Petitioner's Exhibits VV and WW, with the following exceptions: The large cylinder of Exhibits VV and WW has been removed, and a cylin-

der of smaller diameter, which was the same cylinder as shown in Petitioner's Exhibit KK, and likewise the reciprocating drum "18" was removed, and a smaller reciprocating drum "18," the same as shown in Petitioner's Exhibit MM was placed on the reciprocating rod "8," and fastened so that the reciprocating drum "18" could not rotate with relation to the reciprocating rod "8." The locking means was obtainable by means of locking screw "19." The figures which I have referred to, the numerals which I have referred to appear on Petitioner's Exhibit MM. Mounted on the reciprocating drum or cylinder "18" was a scraper, a scratcher having wires, which at their outer ends were bent in and in an upward direction.

Q.173: How did that compare with the illustration on page 2 of Petitioner's Exhibit E, that scratcher?

A. Generally similar, but smaller in diameter, and likewise it is similar to Applicant's Exhibit 2, but also of smaller diameter. In other words, the scraper mounted—we haven't given that an exhibit number, have we?

Mr. Lyon: I will do it right now. I will offer the [2642-57] photograph last identified by the witness in evidence as Petitioner's Exhibit XX.

(Photograph referred to was marked by the Notary Public as Petitioner's Exhibit XX, and made a part of this deposition.)

The Witness: —on Petitioner's Exhibit XX

was generally of the type of Applicant's Exhibit 2, but of a smaller diameter, namely, three and a half inch instead of five and a half inch. The scraper was operated—

Q.174: Scratcher?

A. The scratcher was operated in the same manner as the scratchers heretofore testified to, and the same as in the scratchers testified to before, it traveled along straight lines between the reversal points and at each reversal point, that is, the upper reversal point and the lower reversal point, it rotated upon the fixed—that is, the reciprocating drum "18," which is fixed against rotation, and in each case an index mark was placed on the body of the scratcher, and was set adjacent the zero mark on the index scriber on the upper stop collar "21." At the reversal point the rotation was noted by comparing the amount of rotation of the index mark of the scratcher with relation to the zero mark on the collar "21."

Q.175: Did the wire ends of this scratcher trace [2642-58] a pattern or path on the inside of the cylinder?

A. Yes, it did.

Q.176: How did that traced path compare with the lines which are visible between the words "Barkis 2" and "Barkis" on Exhibit J?

A. Extremely comparable to it.

Q.177: Now, did you test any further scratchers on that day, and at that place?

A. Yes, I believe we did.

Q.178: I hand you, in that regard, a further

photograph, and ask you if you can identify that?

A. Yes, you have handed to me another photograph which was taken September 27 in the backyard of Mr. Wright's home, and shows the test machine set up as in Petitioner's Exhibit WW, with the exception of a different type of scratcher mounted upon the reciprocating drum "18." In this instance the scratcher mounted on the drum was directly comparable to Applicant's Exhibit 2 here in this deposition.

Q.179: Comparable in what way?

A. Comparable in the extent—comparable in the manner in which the wires extended from the body of the scratcher and were turned upwardly at their outer free ends.

Q.180: Do you know of any difference whatsoever [2642-59] between the scratcher as shown in this photograph and Applicant's Exhibit 2?

A. No, I do not.

Mr. Lyon: I will ask that this photograph be marked in evidence as Petitioner's Exhibit YY.

(Photograph referred to was marked by the Notary Public as Petitioner's Exhibit YY, and made a part of this deposition.)

Q.181: (By Mr. Lyon): I take it that the scratcher pictured in Exhibit YY was the scratcher there mounted upon the five and a half inch casing?

A. That is correct.

Q.182: Was this scratcher tested?

A. Yes, sir.

Q.183: In the test apparatus as shown in the photograph YY?

A. Yes.

Q.184: Was the test conducted in the same or different manner from the test you have previously described?

A. Just the same.

Q.185: What was the result?

A. Just the same. The scratcher progressed always in the same direction at the reversal points, and between the reversal points scribed straight lines on [2642-60] the interior or internal bore of the cylinder "2."

Q.186: You say it progressed the same at reversal points. What do you mean by "progressed"?

A. It rotated, that is, the body of the scratcher rotated with relation to the reciprocating drum "18."

Q.187: Did the ends of the wires trace a path on the inner surface of the cylinder?

A. Yes, sir.

Q.188: What was that path as compared with the lines visible on the cement core between the words "Barkis" and "Barkis 2" in Exhibit J?

A. Very, very similar.

Q.189: You have stated that in each of these tests that the scratcher collar rotated with respect to the square shaft. Did it rotate on the improvised cylinder or drum "18," or its larger equivalent?

A. Yes, sir. It rotated with relation to that drum "18," either the larger or the small one, depending upon which was in the machine for the particular

test, and each time the rotation was noted by a reference mark on the body of the scratcher and the index numbers placed on the upper stop ring of the reciprocating drum "18."

Q.190: What did that mean with respect to the [2642-61] lines that were traced in the vertical movement of the scratcher, were they in the same place or different places on the surface of the drum?

A. With each stroke of reciprocation each wire traced a new line spaced from the previous line scribed by it during the previous stroke of reciprocation. In other words, all of the free ends of all of the scratchers progressed at the reversal point in varying degrees, so that the free ends of the wires traced a new line, new vertical line from one reversal point to the next.

Q.191: What does that mean with reference to the covering of the inner surface of that cylinder by the wires?

A. It means that with sufficient number of reciprocations all surfaces of the well bore would be scratched or cleaned by the ends of the wires, even though the ends of the wires themselves were spaced some considerable distance apart.

Q.192: Was there any difference in this respect—

Mr. Scofield: Read that answer.

(The answer was read by the reporter.)

Q.193: (By Mr. Lyon): You mean by that

wherever any of these scratchers operated in a well, don't you?

A. Yes. [2642-62]

Q.194: I believe you stated that there was no difference in this as to any other scratchers; is that correct?

A. That is correct, excepting as a matter of degree.

Q.195: And by "a matter of degree," you mean what?

A. I mean that certain of the scratchers rotated a little bit more than the others, but they all rotated, and their rotation was always in the same direction, so that the free ends of the wires continuously covered new surfaces of the simulated well bore or easing "24."

Mr. Lyon: We will take a short recess.

(A short recess was here taken.)

Q.196: (By Mr. Lyon): Mr. Doble, I hand you another photograph, and ask you if you can identify it?

A. Yes, sir, I can.

Q.197: Were you present when this photograph was taken? A. Yes, sir.

Q.198: Where was it taken?

A. It was taken out at the studio of Photography Unlimited, 7673 Beverely Boulevard, by Beans Lyon.

Q.199: You are acquainted with Beans [2642-63] Lyon?

A. Yes; I have known him for many years.

Q.200: Who is he?

A. He is the son of Mr. Lewis E. Lyon, counsel for petitioner here.

Q.201: I was not present when this photograph was taken, was I?

A. No, you were not.

Q.202: What is this a photograph of?

A. The photograph which I have before me is a picture of one-half of a cylinder, which has an outstanding flange so that it could be mounted in the testing mechanism or machine as shown in Petitioner's Exhibits MM and KK. It is one-half of such a cylinder. The two halves were bolted together, dowel pins were used to bring the two halves into correct alignment. The internal surface of the cylinder, as well as the slight portion of flange adjacent the bore of the cylinder was coated with a black show card paint, which is a very flat dull black, gives a very flat dull black surface.

Q.203: Sometimes called a poster paint, is it not?

A. Yes, and it is rather soft and chalky in consistency, and very easily scratched from a metallic surface such as that of which this cylinder was formed. I have had placed, I don't remember whether I did it, practically all of it I did, had the letter "J" placed on [2642-64] the upper right-hand portion of the face of the cylinder joint.

Q.204: Now, you placed these two halves of this same cylinder, as you have testified, in the test apparatus, and then what did you do?

A. I operated or directed the operation of the test apparatus in the same manner which I have previously described.

Q.205: What was in the test apparatus, a scratcher?

A. A scratcher of the Jones type, and that is why the word "J" is there, and the scratcher was presented here as Petitioner's Exhibit NN. It was mounted on the reciprocating drum "18" in the manner previously described for the other tests heretofore described, the operating handle was operated—first of all, I will say the collar of the scratcher was marked and the mark on the collar of the scratcher was brought into register with the zero mark on the stop collar "21," and the stop collar was not positioned exactly as shown in the figure of the photograph Petitioner's Exhibit MM, because it did not permit as long a stroke as we were desirous of obtaining, so, therefore, we moved the collar down to approximately three-eighths of an inch of the upper surface of the collar body, so that the collar was free to reciprocate on the reciprocating drum "18" and likewise [2642-65] free to rotate about the drum "18."

Q.206: The only thing you did was give it a longer stroke, is that what you mean?

A. That is correct.

Mr. Scofield: Was this the scratcher NN?

The Witness: Yes, Mr. Scofield, it was. We reciprocated the scratcher twice, that is, we caused the scratcher to go down to the bottom of the stroke, return to adjacent the upper end of the cylinder "24," down again to the bottom of the stroke and then out of the cylinder "24."

Q.207: Then what was done?

A. First of all, the scratcher was then removed from the reciprocating mechanism. The cylinder "24" was removed from the test machine. It was taken apart, the two halves were taken up to the photographic studio which I have previously referred to, and photographed.

Q.208: Just a minute, you are referring to MM in answer to a question. There is not any scratcher shown in MM.

A. No; I was referring to the test mechanism and the reciprocating drum "18" and the stop collar "21."

Q.209: What scratcher was used in this operation?

A. Oh, the scratcher NN. [2642-66]

Q.210: In this photograph NN, on the inner surface of the cylinder as shown, I mean in this photograph—have I marked it?

A. No, you have not marked it.

Mr. Lyon: I will ask that this photograph just identified by the witness be received in evidence as Petitioner's Exhibit ZZ.

(Photograph referred to was marked by the Notary Public as Petitioner's Exhibit ZZ, and made a part of this deposition.)

Q.211: (By Mr. Lyon): On this photograph Exhibit ZZ there are on the inner surface of the cylinder some white lines. What are those lines?

A. Those lines are where the black showcase or show card paint had been scratched from the sur-

face, inner surface of this cylinder by the free ends of the wires of the scratcher Petitioner's Exhibit NN.

Q.212: Now, I notice in the bottom of the photograph, by "the bottom," I mean, referring to the end away from the horizontal flange, that the lines go in a sharp point and then progress sideways. What is indicated by that sideways progression?

A. That is the rotation of the scratcher, which was brought about at the reversal point in the reciprocation of the scratcher during its stroke down and [2642-67] up through the cylinder.

Q.213: There are two substantially parallel lines joined in each case by a point. What are the two parallel lines?

A. The two parallel lines represent the scratch mark made by one of the free ends, that is, the free end of one of the wires of this scratcher NN as it progressed down through the cylinder, passed through the reversal point where the rotation took place, and then traced a new line, scratching the paint from the cylinder as it moved upwardly to another sharp point. I will say that the scratcher also progressed first down and then up to near the top of the cylinder, so that most of the wires projected from the cylinder bore, then down to the bottom of the stroke and then finally out, up and out. It was given two strokes, two full reciprocations or four strokes, I might put it, so that there will be no confusion.

Q.214: Now, Mr. Doble, does that Exhibit ZZ,

and the lines traced on the inner surface of the cylinder show exactly the lines traced by the ends of the wires during the reciprocation of the scratcher of Exhibit NN in the test apparatus?

A. Yes.

Q.215: State whether this photograph, Exhibit ZZ, [2642-68] accurately portrays both qualitatively and quantitatively the rotation of the scratcher during such reciprocation?

A. It does.

Mr. Scofield: I object to that unless "qualitative and quantitative" is explained.

Q.216: (By Mr. Lyon): Do you understand what is meant by "qualitative and quantitative"?

A. Yes, sir. At each end the diversion of the lines from a straight line indicates the path through which the end of the wire took, and by measuring the distance of the vertical line made by a single wire the amount of rotation or degree of rotation can be determined.

Q.217: You have explained to me, have you not, Mr. Doble, that there is a force acting upon the end of each of these wires?

A. Well, if I haven't, there is, during the reversal—principally at the reversal points in the reciprocation.

Q.218: In this particular scratcher how many wires are there?

A. There are 30 wires.

Q.219: So that if there is a force of say one ounce at the end of one wire, what is the total force on the scratcher? [2642-69]

A. The total force would be 30 times that, or 30 ounces.